

THE ANNUAL
OF THE
BRITISH SCHOOL AT ATHENS

No. XXXVIII

SESSION 1937-38

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EXCAVATIONS IN THE PLAIN OF LASITHI. II.

THE following pages give an account of the first half of the excavations conducted on behalf of the British School in June 1937. The party consisted of Mr. J. D. S. Pendlebury, Miss M. Money-Coutts, and Miss M. Pascoe. Emmanoueles Akoumianos was again kindly lent by the School to act as foreman. Thanks to the courtesy of the authorities we had the pleasure of the assistance of Mr. Kh. N. Petrou, Assistant-Director of Candia Museum. His arrival did not take place until after the excavations here described had been finished. He was, however, present during the trial excavations on Karphi and the Papoura, at Donadhes, Kolonna, and Kerasa, the results of which will be the subject of a later report. We also wish to acknowledge the help and interest shown by the local authorities of Tzermiadho, particularly by Mr. Sphakianakes, the Schoolmaster. Figs. 2-6 have been redrawn from our surveys by Mr. C. Hart of Cambridge.

The work was rendered possible by a grant from the Craven Fund of Cambridge University.

Note.—Included in this report is a description of the Cave of Mesquine, excavated in 1938. This completes such profitable work as can be done on the Neolithic to Middle Minoan III sites in the neighbourhood, with the exception of the Argoulia Cave in the village, a matter of great expense and doubtful value, and possible finds of scattered rock-shelters.

I. ADDITIONAL SITES

(continued from *BSA* XXXVI pp. 9-13 and compare *ibid.*, Fig. 2, to which the numbers in brackets refer).

- | | |
|------------------|---|
| 1. Pinakiano | (c) Καρδαμούτσα. Close to and probably part of the site of Μπαγάλι (2). Good rough walling. Bronze double axe, probably MM III with a sign of Linear Script A on each side of the hole at the top (<i>P of M I</i> Fig. 476 No. 7 <i>b</i> and a Δ with a short bar across the top). Proto-corinthian sherds, seventh-century relief pithos showing a rider. |
| 5. Mesa Lasithi. | (d) Κατέλλος and Πατέλλαις. Part of the same site which has been cut through by the roads leading to Tzermiadho and Agios Konstantinos respectively. Traces of walls in the cutting; late sixth- or early fifth-century pithos sherds. |

5. Mesa Lasithi. (e) Ἀρμί. Immediately above the village, to the north. Intermediate Period (Sub-Minoan and Protogeometric) sherds. Traces of burning and a story of an altar and bronze figurine discovered years ago.
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- (b) Ἅγιοι Ἀπόστολοι. About $\frac{1}{4}$ hour farther along the Tapis road, near a spring. MM III sherds, including decorated tripod legs. The walls, however, look Archaic, as do some sherds.

II. FURTHER OBJECTS FROM THE CAVE OF TRAPEZA

(continued from *BSA* XXXVI p. 131).

The following objects, all said to be from the Cave of Trapeza or immediately outside, were recovered from the peasants in 1937 and 1938.

1. (Fig. 1a). Pedestalled cup in mottled limestone. This joins one of the fragments numbered 16 in the catalogue. Height 4.4 cms., diameter 5.3 cms.; cf. a finer example from Mokhlos, Tomb XXI, No. 7. Probably EM II but, owing to its coarser shape might be EM III.

2. (Fig. 1a). Small lid in brown steatite pierced for strings to tie it on to a vase. Height 1.0 cm., greatest diameter 2.9 cms. Cf. caps of clay vases EM I, *e.g.*, from Agios Onouphrios (*P of M* I Fig. 23). EM II.

3. (Fig. 1a). Two fragments of bone seal. Conoid. Height 1.7 cms., diameter 2.2 cms. Pierced horizontally by three holes, two side by side, one at right angles. Curvilinear design. Cf. from Kalathiana (*VTM* Pl. VIII 815). EM III.

4. Base of marble bowl. Diameter of base 3.0 cms. EM II-III.

5. Large fragment of the Egyptian alabaster bowl, No. 9 in the catalogue (*BSA* XXXVI pp. 111, 114). It confirms the height of the vase which had previously been doubtful.

III. THE SURROUNDINGS OF THE CAVE OF TRAPEZA.¹

A. Some 70 metres east of the cave, close to the south-east corner of the hill, a few fragments of an undecorated Middle Minoan I pithos and a fragment of a stone axe too small to give any idea of its type were found in a shallow deposit on a small terrace.

B. In a cleft in the rock 40 metres east of the cave, dignified by the name of Τοῦ Γρυμάνη τὸ σπήλαιον, were found most of the pieces of a Neolithic vase (see below p. 16 and Plate V, 1), a handle of a fabric similar to 'Trapeza Ware', and a number of sherds, including the base of a tripod which could not be dated more closely than to the Early Minoan Period generally. A few Byzantine sherds also occurred.



FIG. 1a.

C. A somewhat confused deposit came to light on a small terrace about 20 metres east of the cave. Most of the sherds ranged from Neolithic to Middle Minoan I—*i.e.*, the main period of the cave itself from which they probably came. In addition to these were a few sherds of Late Minoan I fabric. Finally there were the remains of a Late Minoan III *a* larnax with a gable lid which had apparently contained three bodies. To this burial belonged two stirrup vases, the base of a kylix, a large painted jar, several small cups, and an open painted dish (see below, page 45), as well as three stone beads (1, 53 and 54).

D. On another terrace 20 metres to the west of Trapeza a peasant had found during the autumn of 1936 fragments of two Middle Minoan I pithoi and other sherds of the same date (see below, page 23), as well as a squat stirrup vase of Late Minoan III *b* date (see below, page 45 and Plate IV, 3). From this area came the EM III seal No. 10 *a* already published among the finds from Trapeza.²

¹ In the following pages the number in brackets after an object denotes the catalogue number.

² BSA XXXVI 98.

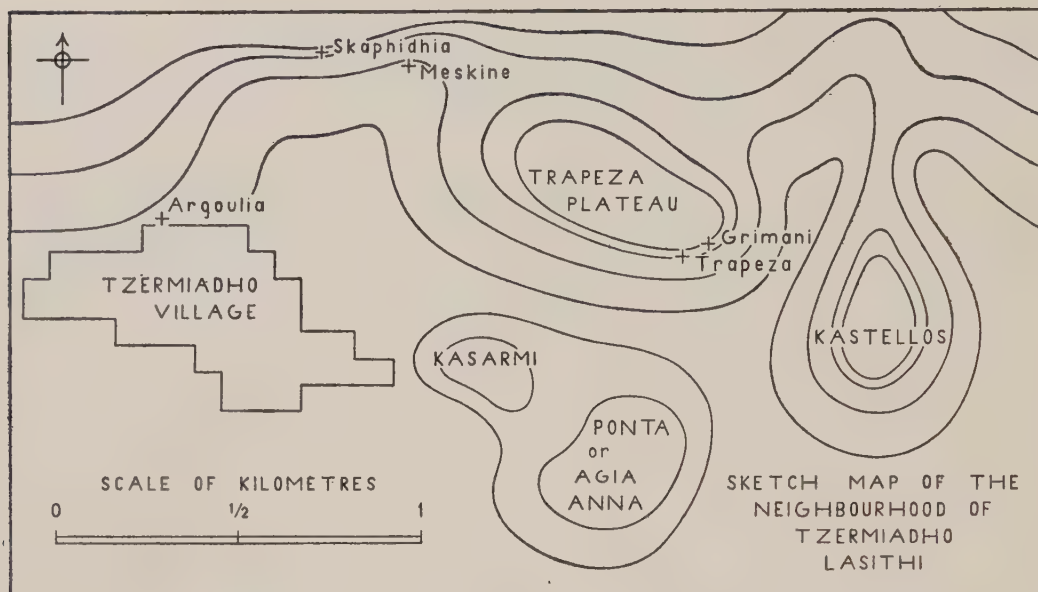


FIG. 1.

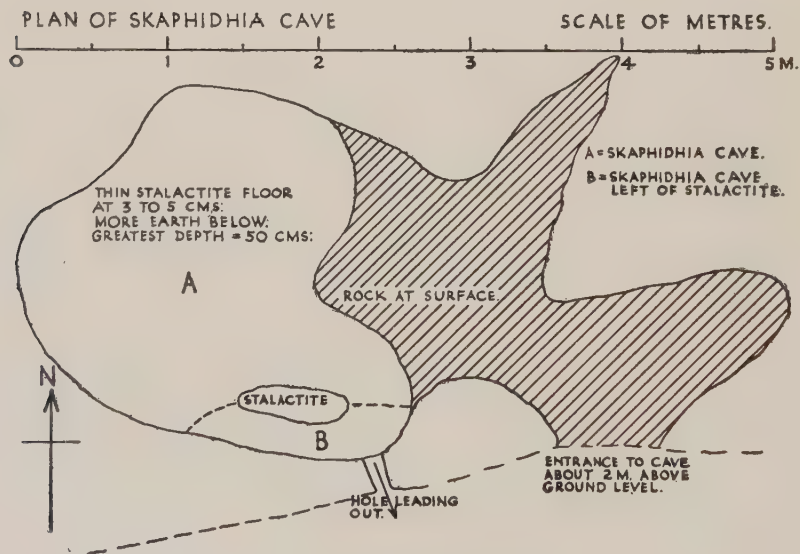


FIG. 2.

IV. THE CAVE OF SKAPHIDHIA (Plate I, 1; Fig. 2).

A quarter of an hour north of the village of Tzermiadho runs a line of cliffs which eventually join the west end of the Trapeza plateau. They are fronted by a thick growth of ilex trees, which makes the examination of them a matter of some difficulty. Many shallow caves occur, and from the top left-hand corner of one, 2 metres above the floor, a narrow hole about 50 cms. in diameter leads to a small chamber some 4 metres by 2, with a height never exceeding 70 cms. Only the inmost 2 metres contained any earth. This had been covered with a thin film of stalactite, above which was found the small Early Minoan I suspension pot (see p. 22 and Plate IV, 2). There is a stalactite pillar near the south wall. In the main body of the cave the first 20 cms. below the surface produced sherds from open bowls, tubular handles, rims, and other sherds of Late Neolithic date, some with a good burnish, but most rough, as well as a few sherds of typical Trapeza Ware. There were many bones, mostly of animals, but some, including a jaw bone, undoubtedly human. Below this arbitrary level to bed-rock, which slopes down to a maximum depth of 50 cms. to the south-west, the same Late Neolithic ware was found, but with a bigger proportion of well-burnished and well-finished fragments. A few incised and punctuated sherds appeared also. Bones, again mostly animal, occurred.

In the narrow space south of the stalactite the level of the surface shelved down slightly, so that the 20 cms. of deposit was actually on a level with the lower stratum in the cave proper. A small crack in the rock at the east end of this space led to the outside cave, but appeared to have been blocked for a considerable time. The sherds from this space were of the same type as those from the lower stratum in the main chamber, but included one which was ripple burnished.

There is no doubt that this cave was used as a burial-place in Neolithic times. It is certainly too small for habitation. Unfortunately the human remains were too scanty to show how many bodies had been interred. It is unlikely that there were more than two. The very slight difference between the two strata, 0-20 cms. and 20-40 cms. (including in this latter the space behind the stalactite), below the surface may indicate some lapse of time between different interments, though, as has been said, the level was taken quite arbitrarily, no change of earth occurring. The pottery from the former corresponded with that from the burial in Test 4 (L 10) on the Kastellos (see below, page 9), that from the latter with the pottery from Test 11 (D 3) on the same site. The total number of vases represented at Skaphidhia is more than the combined total of the other two.

It is, however, possible that the difference visible between the two strata is a matter of style rather than of date, and that there was only one body near which the better vases were placed.

V. THE CAVE OF MESKINE ('THE LEPER')

This cave lies about 400 metres east of the Skaphidhia Cave. It is entered from a small flat terrace in a fold of the cliffs behind the Trapeza Plateau. From the entrance the cave runs due west for about 6 metres, then, after a quick turn north and east, continues towards the north for another 15. At the entrance the height is nearly 2 metres, but diminishes steadily until at the far end the roof is within 40 cms. of the floor. The width is fairly constant at 2 metres. The depth of earth varies consistently from 40 to 60 cms., though outcrops of rock almost reach the surface in places. Five tests were made. Few sherds were found, all belonging to MM I or MM III, with the exception of three Neolithic sherds. There was no stratification, but in the third test, which was made in the turn of the cave just before the final stretch, the remains of a MM I pithos and human bones were found crushed under a fallen rock. No other human bones were found in the cave, and the only object not of pottery was an iron nail in two fragments (370), which is probably modern.

In conclusion we can safely say that this cave was used as a rock-shelter for a Middle Minoan I pithos burial, and probably for more than one belonging to that period and the succeeding Middle Minoan III. The Neolithic sherds are too few, indeterminate, and scattered to show whether the cave was inhabited or was used as a burial-place at that time.

VI. THE KASTELLOS.

A. *Position and Previous Explorations* (Plate I, 3, 4; Fig. 3).

The Kastellos Tzermiadhon is a bold bluff which runs out from the slopes of Psarokorphe about ten minutes east of the village. It rises to a height of about 320 ft. above the plain. To west, east, and south the sides are fairly precipitous, but to the north it is connected with the cliffs behind by a kind of causeway, from the end of which a steep path reaches the summit.

It can never have been of strategic importance. It dominates one route into the plain of Lasithi—that from Potamoi via Zarmas¹—but that was never an important route. Its nearest water supply is, to-day, at the wells called Pigaidhakia, which lie behind the Trapeza plateau. It did, however, in early times offer a safe habitation, well above the then marshy plain, and easily defensible in case of need.

The site had been discovered by Sir Arthur Evans (*Academy* 20.6.96), and it is mentioned by Taramelli (*Mon. Ant.* IX 415). Both of these explorers labelled it a prehistoric citadel. Like Trapeza, it seems to have

¹ Cf. *BSA* XXXVI p. 8. Route 5b.

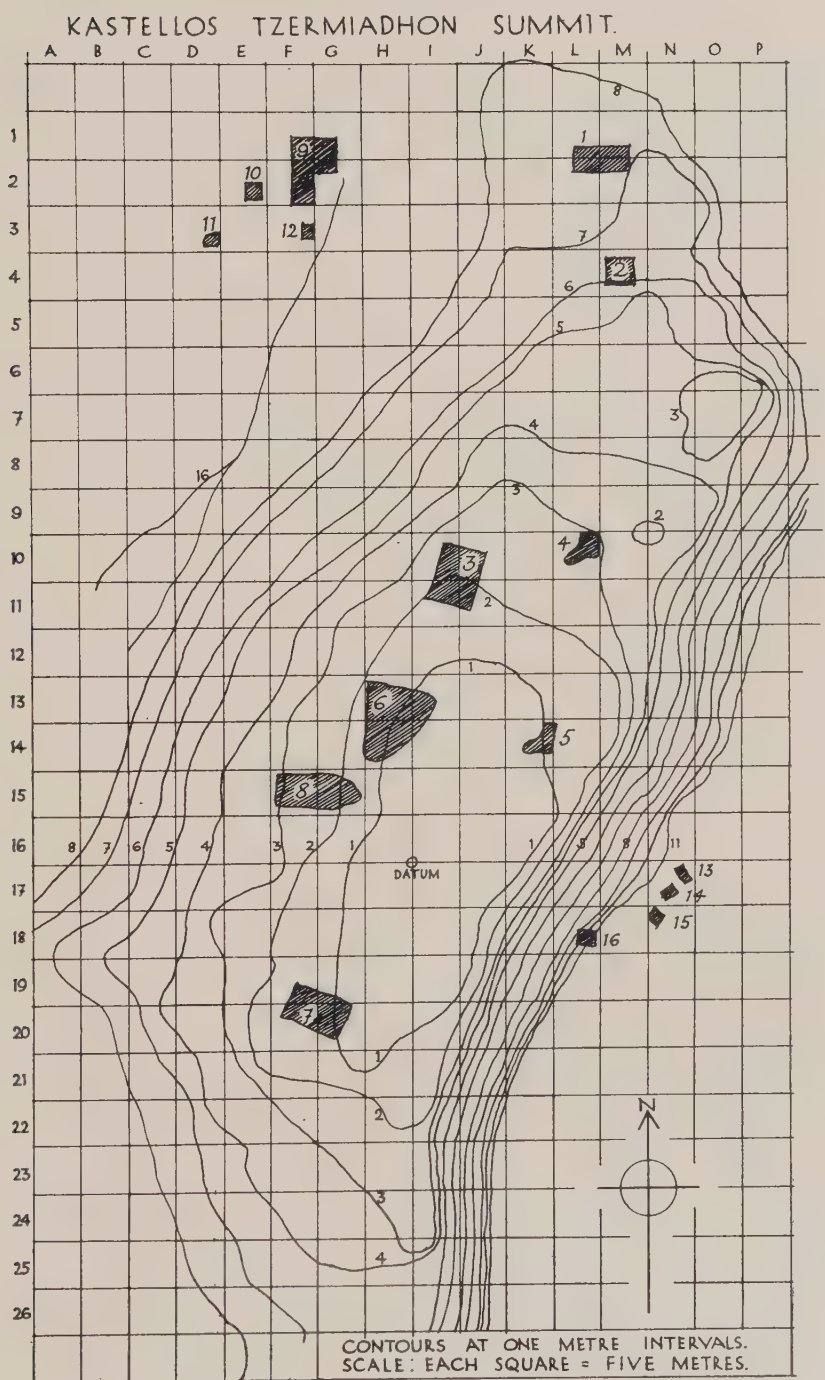


FIG. 3.

remained unvisited by archaeologists until the writers with Mr. R. W. Hutchinson examined it in June 1935. Further surface examinations were carried out in May 1936 during the course of the excavations at Trapeza, and it was decided that it was clearly the next site to be attacked, as being the most likely to reveal the dwellings of those buried in and around the cave in Early Minoan and Middle Minoan I times. Accordingly it was the object of our first tests in June 1937.

B. *The Excavation* (Plates I, 5; II; Figs. 3-6).

The summit of the hill was surveyed and divided for convenience of reference into squares of 5-metre sides, these being labelled from east to west by letters of the alphabet and from north to south by numbers. On the highest point, which had been taken as the bench mark, a small concrete pillar was set up marking the junction of the four squares H and I, 16 and 17. Thus, though in the opinion of the excavators all the information possible has been extracted from the site, future explorers will be enabled to find the exact position of each test.

The summit itself has been very largely denuded and, as soon as it became clear that the plan of no complete town site was recoverable, it seemed advisable to confine the excavations to test-pits at various points, clearing every building that was found, but abandoning the hope of a second Gournia.

The various tests will be summarised in the order in which they were excavated and as each is marked on the general plan.

C. *Summary of the Results.*

Test 1 (LM 1-2). No traces of walls or floor were found. Virgin rock was reached at 50 cms. Pottery: three dark burnished sherds of Neolithic fabric. Little or no EM. Mostly MM I. Some MM III. Two stone pounders. Animal bones.

Test 2 (M 4). Rough stone paving 30 cms. below the surface. Traces of a white plaster floor at 50 cms. below the surface, resting on virgin soil. No walls.

0-30 cms. One or two sherds of Trapeza Ware, a few possibly EM, some MM I.

30-50 cms. A few possibly EM sherds, mostly MM I-III. Top of coarsely made stirrup vase and base of a goblet probably LM I. Hones of schist (5 and 6).

Test 3 (I-J, 10-11). Along the north side of this test runs a wall of rough stones, 4.30 metres long by 0.30 wide. There is some attempt at facing. To the south of this wall and at a depth of 30 cms. there extends for 9.50 metres a kind of stone paving roughly

levelling up the projecting virgin rock. 10 cms. above this was a layer, 15 cms. thick, of carbonised wood and plaster, probably from the ceiling. In this deposit were found the remains of an unbaked mud brick 7 by 29 by more than 15 cms. in size.

North of the wall. 0-50 cms. MM I and MM III. Three whetstones and some animal bones.

South of the wall. 0-just above floor at 30 cms. Some Trapeza ware. Sherds of EM III suspension pot, the rest EM III-MM I. Fragment of clay animal (9) MM I. Fragment of pithos base, possibly Archaic. Spindle whorl (8). Two stone tools. Eight obsidian blades (7). Some animal bones.

SECTION OF LATE NEOLITHIC BURIAL IN L. 10.

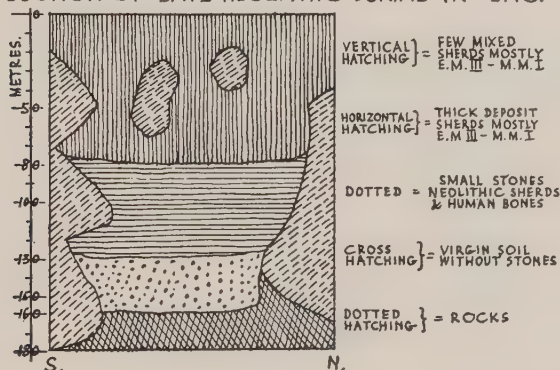


FIG. 4.

Surface of floor. Some polished Neolithic sherds, one incised, some Sub-Neolithic, little EM III, some MM I. Shallow dish and tripod legs might be MM I or MM III. Two whetstones. Animal bones.

Below the floor. Three Neolithic sherds, two incised. A good deal of Trapeza Ware, three fragments of EM II-III cups. A few MM I sherds. Half a spindle whorl (10). Animal bones. Claw of an eagle(?).

Test 4 (L 10) (Fig. 4, Plate IV, 2). This test explored a small rock-shelter and the area immediately in front. At a point 1.30 metres from the surface the colour of the earth changed from black to red and continued so down to virgin soil at 1.60 metres. This stratum was filled with small stones (cf. section, Fig. 4), and, since fragments of human bones occurred, is evidently the remains of a Late Neolithic burial under a rock-shelter corresponding in date

to the presumed primary interment¹ in the Skaphidhia cave (see above, § IV). The upper levels are clearly the result of tipping refuse from the houses above over the edge of the rocks.

0-1.30 metres. A few Neolithic sherds from the last 30 cms. of the deposit. Some EM III. Mainly MM I. Little MM III. Animal bones, two whetstones. Fragments of two hones of schist (3 and 4).

1.30-1.60 metres. Sherds from six or more Late Neolithic vases. Rim of heavy bowl might be EM II. A very few EM III-MM I sherds intrusive from the upper stratum. Part of a stone axe (129). Obsidian blade. Human bones, including part of a skull.

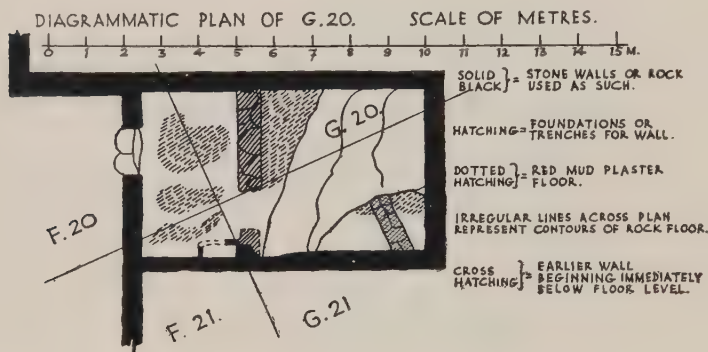


FIG. 5.

Test 5 (K 14). A similar rock-shelter about 1.20 cms. in depth. No stratification.

0-1.20 cms. One sherd of Trapeza Ware, one EM I, mostly EM III-MM I. One rough stone tool. Some animal bones, including the horn of a very small goat.

Test 6 (H-I, 13-14). No walls or floors. Bed-rock reached at levels varying from 20 to 50 cms. below the surface.

0-50 cms. Some Sub-Neolithic, little EM, mostly MM I, one or two sherds may be MM III. Two stone pounders. Blade of red chert (11). Some animal bones.

Test 7 (G 20) (Fig. 5, Plate II, 4). This building appears to be part of a row of houses which ran from north to south along the summit. Its neighbours have been almost entirely denuded, and can only be deduced from the continuation of its west wall at either end. The blocks of which it is built are large and roughly faced. Bed-

¹ See above, p. 5, for discussion as to whether there were one or two burials in Skaphidhia.

rock is used wherever possible as a floor, but is not cut or levelled. Otherwise a rough flooring of red mud was employed at a depth of 50 cms. from the surface. On this floor rested the bases of two of the Archaic pithoi. To the west was probably a small open court, in the north-east corner of which the door led into the first room. Against the south wall of this was a small partition fenced in by upright stones. It resembles a fireplace, but contains no trace of burning. A test-pit in this room revealed another floor of reddish plaster 35 cms. below the later one. Below this the bed-rock varies in depth from 45 to 75 cms. In the east room the rock floor rises sharply and forms most of the floor. In the south-east corner, however, below the mud floor, is a wall of small rough stones belonging to an earlier building with a different orientation.

0-50 cms. Three Neolithic sherds, one punctuated, a few poor specimens of Trapeza Ware, few EM II-III sherds. A good deal of MM I, mainly MM III. Fragments of Archaic pithoi, one sherd with fifth-century glaze. Fragment of stone vase (12). Steatite bead (13). Fragment of bronze blade (14). One stone pounder. A few animal bones.

Outside the front door. A few sherds of Trapeza Ware probably all from one vase. A few MM I cup bases, a few MM III sherds.

Outside the south wall (? another house). One EM sherd, the rest MM I and MM III mixed. One loom-weight, two stone pounders, two obsidian blades (17), some animal bones.

Below floor in Western Room at 0-floor at 35 cms. MM I and MM III. One stone pounder (55).

Below floor at 35 cms.-bed rock. One sherd of Trapeza Ware. Some EM III-MM I sherds. Some possibly MM III. Biconical spindle whorl (16).

South-east corner in conjunction with earlier wall. 50-100 cms. Some Trapeza Ware. Mostly MM I and MM III. Spindle whorl (15).

Test 8 (F-G 15). No walls or floors. The area seems to have been used as a dump for refuse from the houses above in the same way as the upper levels of Test 4 (L. 10). No stratification, however, was visible. Bed-rock at 1.55 metres from the surface.

0-1.55 cms. Some Neolithic sherds, two incised. A few sherds of Trapeza Ware, little EM II-III. Mainly MM I and MM III. Two fragments of trefoil lamps may be MM III *b* or later. Three spindle whorls (20, 21, 22), one punctuated; fragments of stone vases (18, 19, 25). Clay figurine of animal (23). Curved bronze blade (24).

Test 9 (F 1) (Fig. 6, Plate I, 5; II, 1-3). The outer walls of this house are of large stones roughly faced, the inner walls and those built up against the rock are of smaller stones. These latter seem to have been backed by *λεπίδα* or *δωματοχώμα*, which is to-day used as a waterproof material for the flat roofs of houses or for inserting behind walls which are built up against the side of a hill. The

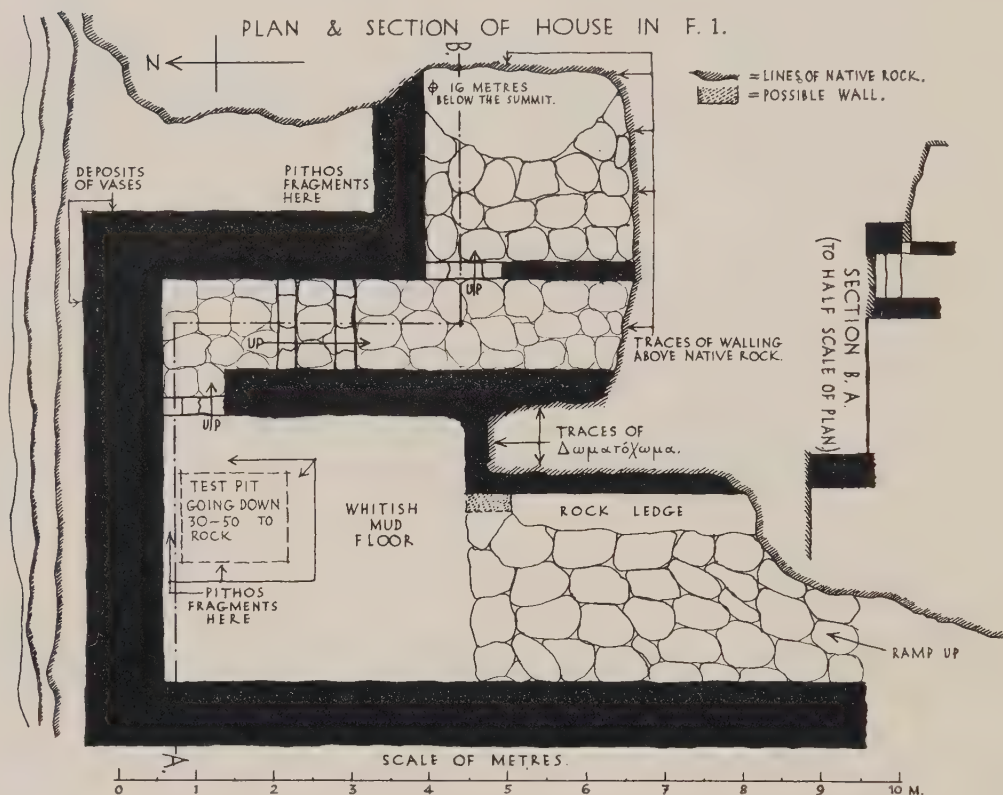


FIG. 6.

entrance is in the south-west corner, where a rock ramp leads up to a passage on the east side of which a rock ledge seems to have been left as a shelf. This passage has traces of a rough stone paving between the irregular projections of the rock floor. In this passage and in the next room stood many pithoi. The main room was paved with whitish mud about 40 cms. above bed-rock. Below this floor a test-pit was sunk by us. Stairs lead up from the north-east corner of the room. They are roughly cut in the rock, the irregularities of the steps filled in with small stones and the

treads faced with larger stones. The remaining two rooms are paved with stone, and utilise the native rock for the base of some of their walls. In the inner room the rock rises above floor level at the east end, and from this higher level access may have been obtained to the otherwise practically inaccessible space outside the north wall in which most of the pottery was found.

Outside North Wall. MM I vases and sherds, many complete MM III vases, as well as sherds. Stone vase and lids (26, 27, 28). Obsidian blade (29). Loom-weight (30). Spindle whorl (31). Inscribed sherd (32).

Outside West Wall (going down a few centimetres below the level of the foundations). MM I and MM III in about the same proportion. All mixed. Fragments of stone vases and lid (38, 39, 40, 41, 42, 43). Limestone pounder (44). Loom-weight (45).

Inside North-west Room. Above floor. Three fragments of Trapeza ware. The rest, vases and sherds, MM III. Clay loom-weight (37). Stone lids (33, 34). Several limestone pounders (35). Two obsidian blades (36). Boar's tusk, fragments of a conch shell.

Test pit below floor to rock at 40 cms. Two sherds of Trapeza Ware, the rest MM I.

Inside North-west Room. Probably all MM III.

Inside Entrance Passage. Few MM I sherds, practically all MM III. One pounder, base of stone vase.

Test 10 (E 2). No floors or walls. Bed-rock at 20 cms. from the surface. 0-20 cms. A few sherds of Trapeza Ware and of MM I.

Test 11 (D 3). This seems to have been another Neolithic or Sub-Neolithic burial in a rock-shelter. The first 1.20 metres is disturbed, but the last 40 cms. is a comparatively pure stratum. The presence of small stones and red earth found in the burial stratum of Test 4 (L 10) was not observed here. This interment seems slightly the later in date, and corresponds to the probable second interment in the Skaphidhia Cave (see above § IV).

0-1.20 metres. About a quarter of the sherds were of Trapeza Ware, the rest MM I.

1.20-1.60 metres. A few Neolithic sherds, one incised, practically all the rest of Trapeza Ware except one EM I sherd and a few MM I. Two human bones. Half a spindle whorl (46).

Test 12 (F 3). This is a small cave divided by a vertical pillar of rock in the middle. There seems to be some indication of a rough blocking just inside the door. Outside the cave at a depth of 80 cms. a carbonised layer and a good deal of charcoal occur immediately above virgin soil.

Outside the Cave. 0-80 cms. MM I and MM III sherds.

Inside the Cave. 0-1.10 metres. One Neolithic sherd, burnished, some Trapeza Ware. More MM I and MM III.

1.10-1.40 (*bed-rock*). Some Trapeza Ware. One EM I sherd, some EM III, MM I and MM III. One piece of obsidian (47).

Test 13 (N 17.1). Two small test-pits. Probably all the remains are from pithos burials. 2 is under a rock-shelter.

1. 0-1.30 metres. Some sherds of Trapeza Ware, the rest all MM III. No pithos fragments. Fragment of stone bowl (51).

2. A few centimetres of deposit only. A few sherds of Trapeza Ware, the rest MM III.

Test 14 (N 17.2). Remains of a pithos burial on a small terrace.

0-80 cms. One sherd of Trapeza Ware, one or two EM II-III, some MM I, much MM III, including sherds from a pithos. Stone lid and cone (bought) (48, 49). Fragment of stone vase (50).

Test 15 (N 18). Remains of a pithos burial on a small terrace.

0-50 cms. A few MM I sherds, the rest all MM III, including pithos sherds.

Test 16 (L 18). Remains of more than one pithos burial on a small terrace.

0-75 cms (*bed-rock*). One MM I cup base, the rest all MM III, including pithos sherds. Part of pierced object of schist (52).

D. Conclusions.

From the excavation of the Cave of Trapeza¹ it was clear that the Neolithic inhabitants had used the cave as a dwelling-place as did also the makers of 'Trapeza Ware,' a fabric which seems to have begun in the Late Neolithic Period and to have continued through the Sub-Neolithic into the Early Minoan I Period.² Perhaps before the end of Early Minoan I, certainly by the beginning of Early Minoan II, the cave had fallen into disuse as a dwelling-place, but was used as a burial-place for the Bronze Age population which had now ventured to live in the open. It continued in use as a cemetery throughout Early Minoan III. Whether it retained this character in Middle Minoan I or whether it had by that time become a place of offerings only is uncertain.³

The evidence of the present excavations fills in the gaps neatly. We

¹ BSA XXXVI 14 ff.

² This is clear from the scantiness of EM I sherds in the cave and on the Kastellos.

³ BSA XXXVI 23. Burials in caves and rock shelters were, of course, common in MM I, particularly in North and Central Crete—e.g. Knossos, JHS LV 168; Mallia, BCH 1929 527 and Meskine, see above, p. 6.

find the inhabitants of Trapeza employing smaller versions of their dwelling-place for the abode of the dead. The Skaphidhia Cave and Tests 4 (L 10) and 11 (D 3) provide good examples. From the amount of Trapeza Ware found generally over the Kastellos it would seem that before that ware ceased to be made the makers had already begun to settle the site.

It is unfortunate that the summit of the Kastellos has been so denuded. On such a bare rocky site there is so little accumulation of earth that subsequent builders were always apt to sweep away all traces of previous occupation in order to obtain good foundations. It seems clear, however, from the sherds found in Tests 3 (I-J 10-11) and 6 (H-I 13-14) and in the rubbish dumps of Tests 4 (L 10), 5 (K 14), 8 (F-G 15) that the settlement to which the Early Minoan II-III burials in Trapeza belonged was situated here.

To Middle Minoan I belongs the foundation of the two houses discovered in Tests 7 (G 20) and 9 (F 1). That is clear from the results of test-pits below the floor. The burial-place of the inhabitants was evidently on the slopes of the Trapeza plateau (see above, § III, A and D), if not in the cave itself as well.

Middle Minoan II as a period did not exist in this district. A few vases of this style were imported from the great centres and received the honour of being buried or offered in Trapeza,¹ but not one sherd was found on the Kastellos.

Indeed, Tests 7 (G 20) and 9 (F 1) prove that the Middle Minoan III Period succeeded immediately on to the Middle Minoan I, since it is clear that the occupation of these two houses is continuous.

By this time the Cave of Trapeza must have fallen into disuse even for offerings. The mantle of sanctity descended on the Diktaian Cave at Psykhro, 4 miles away on the other side of the plain, and the burial-place was changed to the slopes of the Kastellos itself (Tests 13-16, N 17 and 18, L 18).

In the Late Minoan I Period the site seems to have been practically deserted, Tests 2 (M 4) and 8 (F-G 15) alone providing sherds of that date. No doubt, in the regular fashion of that day, the small Lasithiote sites tended to be deserted in favour of the larger centres of Plate and, in the present case, of the Papoura. At all events, objects of Late Minoan date are extremely rare in this district (cf. § III, C and D).

In the Intermediate Period (*i.e.*, the so-called Sub-Minoan-Proto-geometric Period, see p. 134) the low-lying sites were abandoned for the peak of Karphi. Gradually at the beginning of the Geometric Period the population is tempted down again. By Archaic times the Papoura and its suburbs of Donadhes and Kolonna form a thriving city, with a sizable town at

¹ BSA XXXVI p. 43 Nos. 163-5; p. 68 Nos. 543, 4, 6.

Agia Anna or Ponta, some lonely spirit from which may have re-occupied the solitary site of the old Middle Minoan III house on the Kastellos.¹

E. *The Pottery.*

(Plates IV–VI; Figs. 7–19.)

Neolithic.

(Plate V, 1; Fig. 7.)

The earliest pottery found during 1937 comes from the Skaphidhia Cave. As has already been suggested, it is probable that the deposit found here represents burials of more than one date, and that the first interment was disturbed in order to make room for a later one. The sherds from below 0.20 (N 11–18 in the catalogue below) are generally burnished, and resemble in their fabric and their occasional incised or punctuated decoration the Neolithic sherds from the Trapeza Cave.² They appear to be from bowls with either straight or outspayed sides, and often with tubular handles, but are too much broken for reconstruction. From the corresponding pocket behind the stalactite come two well-burnished sherds which are yellowish in colour instead of the usual black, and one which is distinctly ripple burnished (N 18). The latter finish is rare after the end of the Middle Neolithic Period,³ but, since it is unlikely that the yellowish sherds are earlier than Late Neolithic, may in this instance merely show a survival of technique. Its occurrence does, however, imply that some of the deposit is not so late as the Sub-Neolithic Period, to which the unburnished wares of the upper level must belong. The earliest remains at Skaphidhia, as at Trapeza, should therefore be contemporary with the Late Neolithic of Knossos.

Neolithic sherds, occasionally incised, were also found on various parts of the Kastellos, but the only important deposit was that connected with the burial in Test 4. Here again no whole or restorable pots were recovered, but some six or more bowls of the usual rather amorphous type seem to be represented. Two sherds, one perhaps showing a flat base and the other with incisions below the rim, are described in the detailed catalogue below (N 19 and N 20). The other fragments are mostly burnished, but less carefully than those from Skaphidhia, so that, although there is little which can be called Sub-Neolithic, it is likely that the burial should be dated to the very end of the Neolithic Period proper. It seems, at all events, to precede that of Test 11, where Trapeza Ware predominated.

The most interesting Neolithic find is a deep, round-bodied, vessel from the Grymani rock-shelter (N 21). Both the shape and the vague pattern

¹ Test 7 (G 20).

² BSA XXXVI 26 ff.

³ *P of M I* 36–38 fig. 5; II 9 n. 1.

burnishing of this vessel appear to be unique, but since pattern burnishing is found on EM I pottery in Central Crete,¹ it seems that it should not be dated very early. It is, however, utterly unlike Trapeza Ware, and unless it is an import, which is made improbable by the occurrence of a sherd in precisely similar fabric in Test 12 on the Kastellos, must be dated to the end of the Neolithic Period, with the warning that this may make it contemporary with Sub-Neolithic in other parts of the island.

In 1938 a third cave, that of Meskine, was tested, and here again the earliest sherds were Neolithic. These were few and scattered, and gave the impression of being the result of habitation rather than of burial. They are of the usual type, but none are incised. A rock-shelter some 70 metres west of Skaphidhia also produced a few Neolithic fragments.

(*Note.*—The numbers are continued in sequence from those of the Neolithic sherds from Trapeza, *BSA* XXXVI 28.)

Skaphidhia Cave, below 0.20.

- N. 11 (Fig. 7).—Rim of bowl in dark gritty clay with black well-burnished surface.
 N. 12 (Fig. 7).—Rim of bowl of similar fabric to N. 11, but more outplayed. Too little remains to tell diameter.
 N. 13 (Fig. 7).—Rim of bowl in similar clay to N. 11, but with the surface varying in tone from black to reddish-brown. Other sherds apparently from the same vessel seem to show that this had a rounded base.
 N. 14 (Fig. 7).—Rim of bowl in similar clay to N. 11, but with the surface less well burnished. Outside there is a deep groove.
 N. 15 (Fig. 7).—Rim of bowl of similar fabric to N. 14, but from a straighter-sided vessel.
 N. 16 (Pl. V, 1).—Part of side of bowl of similar fabric to N. 11, but with parallel incised lines apparently running in a deep zig-zag design on the shoulder. A large tubular handle evidently belongs to the same vessel.
 N. 17 (Pl. V, 1).—Part of side of bowl of similar fabric to N. 11, but rather more squat in shape. At one point there are two parallel rows of punctuations.
 N. 18 (Pl. V, 1).—Fragment of bowl in similar clay to N. 11, but with the outer surface ripple burnished.

Kastellos. Test 4. 1.30–1.60.

- N. 19 (Fig. 7).—Rim and side, perhaps coming down to a flat base, of bowl of similar fabric to N. 11. It is possible that the apparent 'base' is merely due to a carination of the side.
 N. 20 (Fig. 7).—Rim of bowl of similar fabric to N. 14, but decorated outside with two parallel rows of dashes.

Grymani Rock-Shelter.

- N. 21 (Pl. V, 1; Fig. 7).—Vessel in dark clay varying from yellowish-brown to black on the surface. The base is rounded and thicker than the sides. On the rim two triangular lugs seem to have projected upwards either side of the handle, but the shape of these is uncertain and both they and the handle itself have been largely restored. At right angles to the handle the rim is uneven. The surface is slightly burnished, and the marks of the polisher appear to have been deliberately emphasised so as to give the impression of a pattern.

¹ *P of M* I 59 Fig. 19.

Trapeza Ware.

(Plate V, 2; Fig. 7.)

The Skaphidhia Cave produced as well as true Neolithic a considerable quantity of Sub-Neolithic pottery, mostly from the first 20 cms. This can

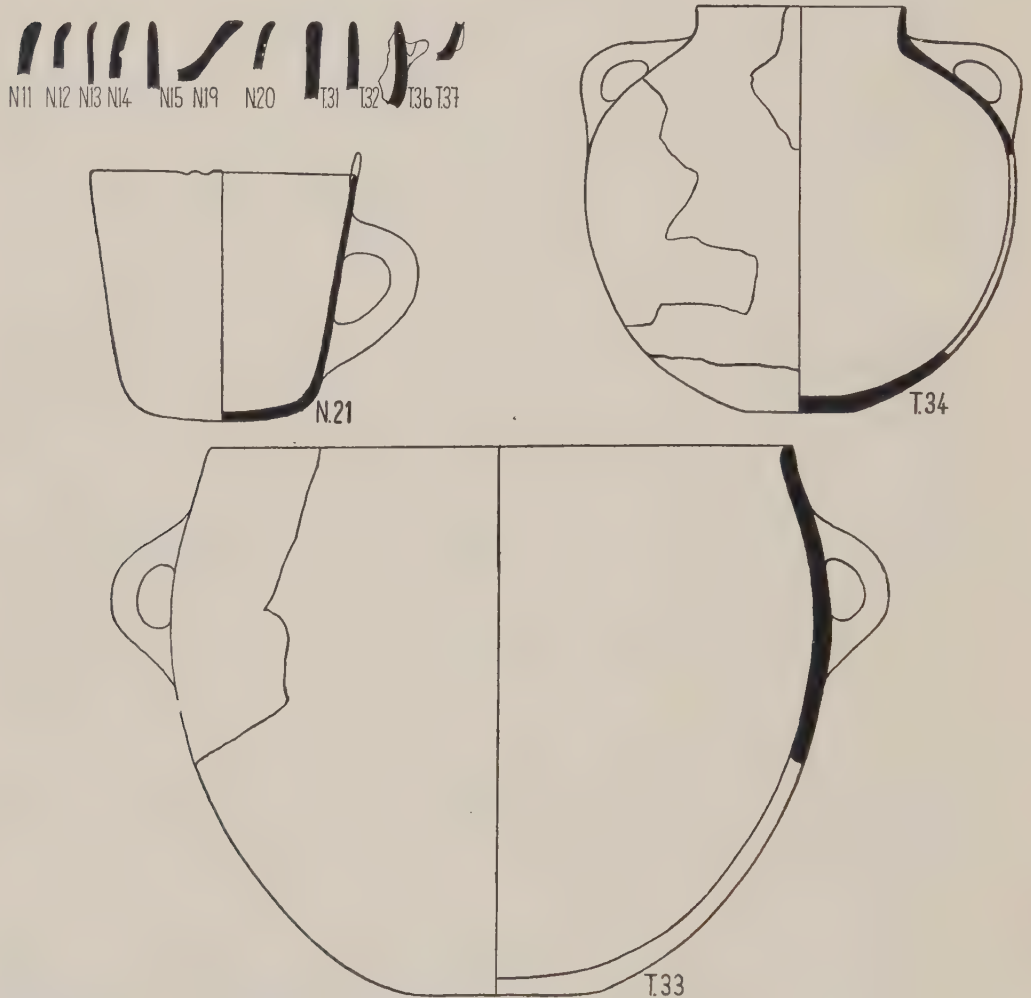


FIG. 7.—NEOLITHIC AND TRAPEZA WARE.

Scale, 1 : 4.

be classed with the Trapeza Ware found during 1936,¹ although lacking some of its characteristics. The clay is identical and the surface is similarly

¹ BSA XXXVI 28 ff.

unburnished, but often wiped over in such a way as to produce shallow scorings; on the other hand, although the colour varies from purplish-red to black, owing to uneven firing, only a few sherds show the typical small mottling of Trapeza Ware. Some rims (T. 31-33) are evidently from straight-sided vessels, and much of the side of one of these (T. 33), which resembles in shape T. 17, could be pieced together. Another (T. 34) is turned up to form a collar neck, and perhaps shows the first stage in the development of the 'two-storied' pot of which no specimens occurred. The pitted sherds (T. 35) recall T. 16. Bases are too often lacking, but were probably generally rounded, although one which is definitely flattened seems to belong to the collar-necked vessel referred to above (T. 34). Handles are tubular with the exception of the small imperfectly pierced lug on T. 36. The fabric of this fragment, as well as its provenance, argues that it is Sub-Neolithic, and although vertically pierced lugs are generally considered not to begin before EM I, they occur on a pot from the Miamou cave¹ which should date from the very beginning of this period, while the present specimen, with its inner divisions, finds its most direct parallel in a Middle Neolithic vessel from Knossos.² It perhaps affords added proof of the fact that Trapeza Ware in Lasithi overlapped with EM I in other parts of Crete, although the Trapeza Ware of Skaphidhia must at least be earlier than the small tripod pot (Bowls 1) which was found on the surface there. The sherds under discussion cannot, at all events, be widely separated in date from their counterparts from Trapeza itself, and the differences which exist between the two deposits are probably due to the fact that Skaphidhia was used as a burial-place and Trapeza as a dwelling.

On the Kastellos the two most important finds of Trapeza Ware were in the lower levels of Tests 3 and 11. The deposit in the former area seems to have been due to habitation. It includes some mottled sherds and many which are merely badly fired. The shapes represented are much the same as those from the Trapeza Cave, and there are sherds both from 'two-storied' pots and from heavy, burnished cooking-vessels (cf. T. 9 and T. 24). The only new type is a small flat base with vague incisions (T. 37) which from its roughly rectangular contour seems possibly to belong to some sort of tray similar to that cited above in connection with T. 36. The remains in Test 11 may have been connected with a burial. They consist almost entirely of Trapeza Ware, although a few Neolithic sherds and one of powdery grey EM I ware again give proof of the Sub-Neolithic date of this pottery. On the whole the fragments resemble those from Trapeza rather than those from Skaphidhia. No new shapes are represented, but there are several sherds from 'two-storied' pots and two specimens of 'tress' decoration (cf. T. 9). Two different types of handles did, however, come to light. One (T. 38) resembles Neolithic handles

¹ *P of M I* 58 Fig. 17, 3.

² *Ibid.* I 37 Fig. 6, 11 a.

from Phaistos,¹ although smaller and more roughly made, but does not seem to have come from a vessel of quite the same shape as these, since the wall where it is attached is only slightly curved and could hardly form part of a rounded shoulder. The other (T. 39) is very fragmentary, but appears to have been ledge-shaped.

Trapeza Ware sherds also occurred on many other parts of the Kastellos, but only in small numbers. From the surface of Test 14 comes a handle (T. 40) exactly similar in shape to the Neolithic handle N 8 from Trapeza. A ridge, horizontally pierced, from Test 12 recalls the pierced 'tress' T. 10, and has an equally anthropomorphic look (T. 41). A sherd with irregular incisions (T. 42) from Test 6 seems to suggest that the shallow scorings so often noticed on Trapeza Ware were sometimes deliberately imitated by way of decoration, and perhaps explains the origin of the incisions of T. 37, T. 38, T. 39, and T. 41. Two rim fragments and a wish-bone handle were found, curiously enough, inside the north-west room of the house in Test 9, where almost all the rest of the pottery was MM III. The former (T. 43) have incisions at the top which anticipate the rope-design on the rim of a bowl from the same area (Bowls 3), although this must have been made some thousand years later.² The latter (T. 44) is to some extent paralleled at Knossos in Neolithic times,³ but is a shape unusual in Crete and suggesting northern influence.

Unfortunately it is still impossible to restore any Trapeza Ware vessels with complete certainty, but the conclusions previously reached as to their shapes have not been greatly altered. The only new features are the flat base (T. 34), the handles (T. 38-40 and T. 44), the incision (T. 37-39, T. 41 and T. 42), and the entirely problematical 'trays' (T. 36 and T. 37). The date previously assigned to this ware has also been confirmed, since wherever it occurred in any quantity it was always associated with a few dark, burnished, Neolithic sherds, and yet, owing to the almost entire absence of EM I pottery on the Kastellos, must have continued after the beginning of that period. It evidently marks the final stage of the Neolithic culture of Crete which in Lasithi had a longer uninterrupted development than elsewhere.

(Note.—The numbers are continued in sequence from those of the Trapeza Ware sherds from Trapeza, *BSA* XXXVI 33.)

Skaphidhia Cave. 0-0.20.

T. 31 (Fig. 7).—Rim of bowl in coarse gritty clay, red on the outside, but grey within. The surface is irregularly scored as though from wiping.

¹ *Festos* I 101 Fig. 44. These handles have already been quoted in connection with N. 8 *BSA* XXXVI, 26.

² It is an interesting fact that pots with similarly incised rims were made in Lasithi almost to the present day.

³ *P of M I* 38 Fig. 7, 1-7.

- T. 32 (Fig. 7).—Rim of bowl of similar fabric to T. 31, but rather finer and grey on both sides.
- T. 33 (Fig. 7).—Sherds from rim, shoulder and handle of large open bowl in coarse, pale-brown clay. The surface is much worn and encrusted, but does not seem to show any marks of wiping. The base is missing. The diameter must have been between 36 and 40 cms.
- T. 34 (Fig. 7).—Sherds from rim, shoulder and base of globular bowl of similar fabric to T. 31. The rim is turned up to form a collar, below which are two tubular handles. The base is flat, but small for the size of the vessel and forming a very obtuse angle with the sides. The three parts do not quite join, although from the fabric it seems certain that they belong to the same vessel. Diameter of rim ϵ . 11 cms. Diameter of base 6.5 cms.
- T. 35 (Pl. V, 2).—Sherds from side of vessel probably of similar shape to T. 34, but in fabric more resembling T. 33. The surface is shallowly pitted all over.
- T. 36 (Pl. V, 2, Fig. 7).—Rim and side of vessel in coarse clay, grey at the core, but red on the surface. The rim is upright. From the curve of the sherd it appears that the base must have begun near the lower break. Inside there is a broken projection which suggests some division of the vessel. Outside there is a lug handle which was evidently meant to be pierced vertically, but the hole is blocked at the bottom, perhaps owing to clumsiness on the potter's part while the clay was wet. It is impossible to tell whether the vessel was round or rectangular, but the latter seems more likely.

Kastellos.

- Test 3. Below floor at 0.30. T. 37 (Pl. V, 2, Fig. 7).—Fragment of flat base of similar fabric to T. 36. Outside there are rough horizontal and vertical incisions and a small, much-worn knob which may represent part of a handle. The vessel was evidently not round, since the side turns more or less at a right angle at the point where the knob occurs, but its shape is uncertain.
- Test 11. 1.20–1.60. T. 38 (Pl. V, 2).—Handle and part of side of vessel in coarse dark clay with the typical mottling of Trapeza Ware. The handle is narrower than usual, and the clay has been pinched up at the top to form a projecting knob.
- Test 11. 1.20–1.60. T. 39 (Pl. V, 2).—Fragment of similar fabric to T. 36, which seems to be part of a ledge handle. There are rough incisions above resembling those of T. 37.
- Test 14. Surface. T. 40 (Pl. V, 2).—Part of handle of similar fabric to T. 38. This is of exactly the same shape as N. 8, triangular in section at the top, but broader and flatter below.
- Test 12. 0–10. T. 41 (Pl. V, 2).—Part of rim of similar fabric to T. 38, but with the mottling less apparent. A ridge runs vertically down from the top, and is divided by a groove into two sections, the upper and shorter being pierced and giving the appearance of a head with eyes. There are rough horizontal incisions below the rim and vertical ones at the side of the ridge resembling those of T. 37.
- Test 6. T. 42 (Pl. V, 2).—Rim of similar fabric and shape to T. 32. Outside, instead of the usual shallow scorings, there are deep, irregular incisions.
- Test 9. N.W. Rooms. T. 43 (Pl. V, 2).—Two sherds from rim of bowl of similar fabric to T. 38. The top is slightly blackened, like that of T. 11, and is incised with a series of diagonal cuts, which, at a certain point, alter their direction. The two sherds are not of quite the same thickness, but seem likely to belong to the same vessel. The diameter must have been over 20 cms.
- Test 9. T. 44 (Pl. V, 2).—Part of handle of wish-bone shape of similar fabric to T. 37.

EM I.

(Plate IV, 2; Fig. 8.)

Only one pot which can certainly be attributed to EM I was found during 1937. This is the small tripod vessel from Skaphidhia which has already been mentioned in connection with the dating of the Trapeza Ware from the same deposit. It is of the soft grey fabric which has been discussed at length in the report on the Trapeza Cave,¹ and although this fabric does not in itself afford conclusive evidence as to its date, its general appearance is so primitive that it seems only reasonable to place it at the beginning of the Minoan Age. Its three small feet are also perhaps an indication of its earliness.² On the other hand, it was found on the existing floor of the cave, above the thin layer of stalactite which covered most of the earth, and must therefore be later than the other remains from Skaphidhia and quite unconnected with the burials below. Also since Trapeza Ware probably continued in use during the beginning of EM I, it should not belong to the earliest phase of that period. Its closest parallels outside Lasithi are from the Messara,³ where pots of similar type seem to persist later than elsewhere in Crete; and it may be an import from that district. At all events, it seems clear that it must date from the latter half of EM I.

On the Kastellos only a handful of sherds were found belonging to this period. They are in the same grey fabric, but are too small for their shape to be certain, although they appear to come from suspension pots or pyxides. A number of rough hand-made fragments may be contemporary, but are not datable with any certainty. If an EM I settlement existed, its remains must have been entirely swept away by later building, but it seems that in Lasithi this period was short and that stylistically its pottery was hardly distinguishable from that which preceded it.

Skaphidhia Cave.

Surface. Bowl 1 (Pl. IV, 2, Fig. 8).—Small suspension pot in soft, powdery, grey clay. The base is more or less flat with three small knobbed feet. The body is roughly globular with a low collar neck, the rim of which is pierced at either side. On the shoulder are two small, vertically pierced lugs. The body is decorated with a series of horizontal lines incised with a blunt instrument.

EM II.

A few sherds from the terrace 20 metres west of Trapeza and a larger number from the Kastellos seem to belong to the EM II Period, but no whole or restorable pots of this date were found. All the distinguishable

¹ *BSA* XXXVI 33, 43.² Frankfort *Studies* II 87.³ *VTM* p. 35, 4189 Pls. I and XXV.

shapes represented have already been described in the report on the Trapeza Cave.¹ Fragments from open dishes (cf. 304-10) occurred on the terrace and in Tests 7, 8 and 14, that from the last named being carefully polished like 308. One sherd from a dark burnished cover (cf. 401-10) was found in Test 14. Bases and handles from large cups (cf. 501-11) came to light in Tests 3, 4, 6 and 7, and from 4 and 7 there are sherds from strainers similar to 508. No real Vasilike Ware was found, but fragments from jugs in the local imitation of this fabric, which it has already been suggested² probably continued in use into EM III, occurred in Tests 4 and 7, and from the latter there is a goblet base in the same ware (cf. 809-10). Sherds from suspension pots in red clay (cf. 121-23) from Tests 3 and 8 may equally belong either to EM II or EM III. No other shapes certainly attributable to the former period were recognised, but all the Early Minoan pottery from the Kastellos was in too poor a condition for such recognition to be easy.

EM III.

Practically none of the pottery from the neighbourhood of Trapeza or from the Kastellos can certainly be attributed to EM III, although a number of sherds are similar to those from the Trapeza Cave which have been dated to between EM II and MM I. These include rims of bowls in red ware (cf. 126-145) from Tests 2, 3, 4, 5 and 7; one in buff clay with an outer ledge (cf. 146-147) from Test 6; bridge-spouts (cf. 208-11) from Tests 3, 4 and 12; and jug necks with knobs (cf. 624-28) from Tests 4 and 7. It is also probable that some of the cup fragments in fine buff clay with a dark wash which occurred in almost every area excavated belong to this period (cf. 520) rather than to MM I, but all are too much worn for the quality of any white paint with which they may have been decorated to be apparent.³

MM I.

(Fig. 13.)

No whole pots of the MM I Period were found either in the neighbourhood of Trapeza or on the Kastellos. In the former area there appear to have been a few pithos burials of this date, but these must mostly have been destroyed by modern terracing. 20 metres west of the cave, as has already been noted,⁴ a workman discovered during the autumn of 1936 sherds from a pithos resembling some from that season's excavations (cf.

¹ *BSA* XXXVI, 33 ff. The numbers here quoted refer to the pieces described in this article.

² *Ibid.* XXXVI, 71 ff.

³ Cf. *BSA* XXXVI, 58.

⁴ *BSA* XXXVI 90.

920-22), together with other MM I fragments. 70 metres east of the cave the remains of a similar pithos were brought to light during 1937, but too little of it was left for restoration. The Meskine Cave, which was tested in 1938, produced fragments from two more pithoi (one similar in fabric to 916, the other more resembling 920), both of which had evidently been used for burials, and a number of other MM I sherds, including the base of a cup in buff ware (cf. 524-35) and the top of a trefoil-mouthed jug (cf. 640). On the terrace 20 metres east of Trapeza part of a finely ridged cup (cf. 536) and a few more fragments of MM I pottery were found, but these may have come from the cave itself, and were unconnected with pithos sherds.

On the Kastellos there was evidently a considerable settlement during MM I, but the pottery of this period, although found in large quantities, is in very poor condition, for the site continued in use until MM III, and the earlier remains naturally suffered, even when, as in the case of the house in Test 9, the same building was inhabited without interruption. It was, in fact, found in the greatest bulk in the rubbish-dumps of Tests 4 and 8.

A good many coarse fragments must be of this date, but, since the larger the vessel the more impossible to tell its shape from small sherds, these are valueless. Pithos rims, either flat (cf. 902-12) or flaring (cf. 914-15, 920-21), generally in red but sometimes in coarse buff clay, with rope mouldings (cf. 902-15), ridges (cf. 920-21), or trickles of paint (cf. 916-18), occurred in Tests 2, 3, 4, 5, 6, 7, 8 and 9. In fine ware bowls (cf. 160-62) were represented in Tests 3 and 4, and jugs, sometimes in the peculiar hard light clay previously found in the cave (cf. 629-34 and 636-39), in Tests 4, 5 and 8, but the commonest distinguishable sherds are from cups in either red or buff clay, generally with a dark surface wash (cf. 523-44). These occurred in every test, and were only absent in the lower levels of 4 and 11, where the deposits were almost entirely Neolithic and Sub-Neolithic; all the types noticed from Trapeza were again recognised, and were present in much the same proportion, for whereas only one base—from Test 4—belongs to a pedestalled cup (cf. 523), the majority are from tumblers or from the open, straight-sided shape (cf. 524-35), and a few from the round-bodied and carinated varieties (cf. 539-44). There are also many specimens of ribbed decoration (cf. 536-38) from Tests 2, 3, 6, 7, 8 and 9, which seems to confirm the suggestion already made that this is characteristic of Lasithi. All the sherds are too much worn for polychrome decoration to show, but one—from Test 7—appears to have traces of white paint on the dark wash. It is, of course, impossible to say definitely that none of these cup fragments are later than MM I, for all the shapes seem to have continued until at least the beginning of MM III, and the open, straight-sided type persisted until its close (see Cups 10). The ribbing also remained in fashion, but eventually became more irregular and more

widely spaced (see Cups 4). Straight striations on the base have been taken as a criterion for early dating,¹ but do not afford absolute proof, for the exact similarity in shape between Cups 3 and 10, the former with straight and the latter with concentric striations, and the straight marks on Jugs 2, which has a close MM III parallel from Mallia, suggest that the slow wheel was sometimes used even after the introduction of the fast one.

Three cups from outside the walls of the house in Test 9 have been selected for illustration and description (Cups 1-3), partly because they help to prove that this was the date of the founding of the building, but also because they are representative of the Kastellos material in general. They require no special comment. 1 is paralleled by 525, 2 by 535 and 3 by 529, and the discussion of these examples may be referred to.²

Kastellos.

Test 9. Outside W. Wall to S. Cup 1 (Fig. 13).—Base of tumbler in fine buff clay with traces of dark lustrous wash on the outer surface. No distinguishable striations on the base. Probably handleless.

Test 9. Outside N. Wall. Cup 2 (Fig. 13).—Base of straight-sided open cup in fine pinkish-buff clay with dark brown to black lustrous wash on both inner and outer surfaces. Straight striations on the base. Slight ridging, particularly inside. Ribbon handle restored.

Test 9. Outside N. Wall. Cup 3 (Fig. 13).—Base and part of side of cup in reddish clay. Traces of dark wash on both inner and outer surfaces. Straight striations on the base. A little surplus clay has been pushed up in the process of cutting the cup off the wheel and now forms a ridge round the outer edge of the base. Ribbon handle restored.

MM I-MM III.

(Plate V, 3; Figs. 10, 13, 14.)

No pottery comparable to the MM II 'Palace Style' came to light either on the Kastellos or elsewhere. In Lasithi there seems to have been an uninterrupted development between MM I and MM III, although during the latter period certain new types of pottery came in, corresponding rather with those contemporary in other parts of Crete than with earlier local products. It would be misleading to label the present section MM II, when it includes some objects of which it can only be said that they are MM, and others which merely appear to be later than MM I but earlier than MM III.

Amongst the former are the tripod legs of which large numbers occurred in every test on the Kastellos, for although, if a continuous development is imagined between the dishes from Trapeza (313, 314) and those from Tests 7 and 9 (Tripods 1-4), comparative shortness or length might be

¹ BSA XXX 69; *P of M I* 589.

² *Ibid.* XXXVI 59, 61.

taken as a guide for earliness or lateness, such a classification would obviously be absurd. Pithos sherds are equally impossible to date, for, although during MM III the rims are generally heavier, rope moulding continues¹ and the general shape is almost unchanged until LM times. The shallow dish rims (Dishes 1-4) again cannot, in the absence of parallels from other sites, be placed with certainty. They are evidently common types, for similar sherds occurred in other tests. In particular 4 has counterparts from Tests 3, 4 and 8, but all these are too fragmentary for restoration, or even for it to be clear whether they should be classed as dishes or lids.

Of the vessels catalogued below which should be later than MM I but are not typical of MM III, all but two (Cups 4 and Jugs 3) are from outside the house in Test 9, and might therefore date from any period during its occupation. The cups are particularly difficult to place. 4 recalls the ribbed examples from Trapeza (536-37), but its ribbing is less regular, and it seems to have been made on the fast wheel, so that it approximates to some extent to 11, which itself has an MM III parallel from Knossos.² 5 has the same profile as 542, but its small lip spout brings it into relation with an unpublished vessel from Mallia,³ and 6, in red ware, has an even closer parallel from the same site which is dated to MM III.⁴ The bases of 7, 8 and 9 are too much worn for any striations to show, so that even this guide as to their chronology is lost, but it should be noticed that their handles are rounded and set on at the rim, whereas those of MM I are more often ribbon-shaped and join just outside.

The small jug 1 might, from its general appearance, belong to MM I, since it is not unlike 634 from Trapeza, which, by analogy with others from the Kouloura houses at Knossos, has already been dated to that period. On the other hand, its wash is more lustrous than usual, and it greatly resembles in fabric the spouted jar 4, which can hardly be earlier than MM III. The fact that, in spite of being in very friable clay, it was found comparatively intact, also suggests that it is not a relic of the earliest occupation of the house outside which it was found. Jug 2, again, has an almost exact parallel from Mallia,⁵ which is dated to MM III, but there are straight striations on its base. Fragments of other jugs with similar incisions on the shoulder were found in the same area and also in Tests 7 and 8, so that the type must have been common, and may have continued in use for a considerable time. Jug 3 might be of almost any date; the fact that it is hand-made proves little for so are most of the household vessels of MM III,⁶ and its low spout and lack of knobs differentiate it from the plain red jugs from Trapeza (624-28). The rather high curve of its shoulder seems at

¹ *P of M I* 587 Fig. 430.

² *Ibid.* I 590 Fig. 434.

³ *CM* 8606. This may be MM I, but the excavators seem reluctant to put anything from Mallia earlier than MM III.

⁴ *Mallia II* 34 Fig. 9.

⁵ *Ibid.* II 35 Pl. XV g.

⁶ *P of M II* 305.

Palaikastro to have been taken as a sign of lateness,¹ but it has no precise parallels even from that site.

No other whole or restorable pots came to light which could not with some confidence be attributed to MM III or later.

Kastellos.

Test 14. Surface. Dish 1 (Fig. 10).—Rim of flat open dish in coarse dark-red clay, with a smooth slip on the inside, but with the outside left plain. A shallow groove runs round the vessel outside between rim and base.

Test 14. Surface. Dish 2 (Fig. 10).—Rim of dish in orange clay with a smooth slip on both outer and inner surfaces.

Test 9. Outside N. Wall. Dish 3 (Fig. 10).—Rim of dish, or possibly lid, in coarse red clay without slip or decoration.

Test 9. Outside N. Wall. Dish 4 (Fig. 10).—Rim of flat dish, or possibly lid, in coarse dark red clay, with a smooth slip on the inner surface.

Test 12. 1.10–1.40. Cup 4 (Pl. V, 3, Fig. 13).—Base and side of cup in fine buff clay with dark semi-lustrous wash on the outer surface extending c. 1.5 cms. over the rim. No distinguishable striations on the base. Outer surface ribbed, but rather irregularly and with the ribbing fairly widely spread. Slight ridging inside seems to show that this vessel was made on the fast wheel. Round handle restored.

Test 9. Outside W. Wall. Cup 5 (Fig. 13).—Base and side of carinated cup in grey badly fired clay. No remaining surface decoration. The rim at one point projects to form a small lip spout below which there is a slight thickening in the wall of the vessel. No distinguishable striations on the base. Round handle restored.

Test 9. Outside N. Wall. Cup 6 (Fig. 13).—Part of carinated cup in plain red ware without surface finish. No distinguishable striations on base. Top of handle restored.

Test 9. Outside N. Wall. Cup 7 (Pl. V, 3, Fig. 13).—Cup in sandy red clay, greyish at the core, with traces of dark wash on both outer and inner surfaces. Round handle set on at the rim and reaching about half-way down the side. No distinguishable striations on base.

Test 9. Outside N. Wall. Cup 8 (Pl. V, 3).—Cup of similar fabric and shape to 7. No distinguishable striations on base.

Test 9. Outside N. Wall. Cup 9 (Pl. V, 3).—Cup of similar fabric and shape to 7. No distinguishable striations on base. Round handle restored.

Test 9. Outside N. Wall. Jug 1 (Pl. V, 3, Fig. 14).—Small globular jug with wide neck in flaky grey clay with traces of lustrous black wash on the outer surface. No distinguishable striations on base. Tip of spout and part of handle, which was merely placed on the side and not stuck through the wall, restored.

Test 9. Outside N. Wall. Jug 2. (Pl. V, 3, Fig. 14).—Small squat jug in plain red ware with incised lines round the shoulder. The wall is thick for the size of the vessel. Straight striations on the base. The lip opposite to the handle is restored and may have risen to a definite spout.

Test 12. 1.10–1.40. Jug 3 (Pl. V, 3, Fig. 14).—Small jug in sandy brick-red clay without slip or decoration. Hand-made. End of spout and part of handle restored.

¹ BSA IX 321 Fig. 21, 4.

MM III.

(Plates IV, 4, 5; V, 3; VI; Figs. 8-18.)

MM III sherds occurred in all tests on the Kastellos, for evidently this was the last period in which the site was regularly occupied. A representative collection of whole or restorable pots came to light in and around the house in Test 9, a few were found in Tests 7 and 12, and one (Lamp 1) was described as having come from the area where Tests 13 and 14 were subsequently made. These vessels give a good idea of the general material. Most of the pottery is coarse, and a great deal of it hand-made, which, unless the shape can be reconstructed, makes it impossible to distinguish sherds of this period from earlier ones. The elongation of types which occurs regularly at this date¹ is, however, a useful chronological guide, and many bases with the sides rising almost vertically, such as those of Jars 1 and 2 and Spouted Jars 1-3, were found. Fine ware is rare, although there are a certain number of rather thick sherds in well-levigated buff clay resembling that of Bowl 1. The only distinguishable painted design is that on Jug 5, and not a single fragment shows any trace of the 'tortoise-shell ripple' pattern which is so frequent at contemporary sites,² but all painted sherds have suffered greatly from the effects of the soil. The total lack of the plain open cups with spiral flutings in the interior which elsewhere are almost the commonest products of MM III³ is also worth noting. Cup 12 certainly resembles these in shape, but is much more carefully made and seems to have had a dark wash.

The bowl with a lid (Bowl 2 and 2a) has no exact parallels. Its pierced lugs recall those of EM suspension pots, but the use of lugs for tying on lids evidently persisted for a considerable time, for they occur on a number of MM lids from the Kamarais Cave,⁴ and also on two small bowls and their lids, one from Mallia and the other from Pseira,⁵ which are unpublished, but appear to date from MM III or later. The double rim of the present example greatly resembles that of a vessel from Tylissos,⁶ which, to judge by its decoration, belongs to the transitional MM III-LM I Period. The fact that this bowl, although not its lid, comes from inside the house in Test 9, from a room in which none of the other pottery, with the exception of three Trapeza Ware sherds, could be attributed to anything but MM III, seems to make it clear that it, too, must be of this date. The two rounded bowls (Bowls 3 and 4) again have no counterparts. As has been already pointed out,⁷ the rope pattern at the rim of the former is a decoration fashionable in Lasithi almost to the present day, and other fragments bearing it were found in Test 4. Sherds with the same type of rim as the latter occurred in Tests 7,

¹ *P of M I* 571.⁴ *BSA XIX* 27 Fig. 6.⁶ *CM* 7257.² *Ibid.*, II, 305.⁵ *CM* 9152 and 5455.⁷ In connection with T. 42, p. 20.³ *Ibid.*, I, 589.

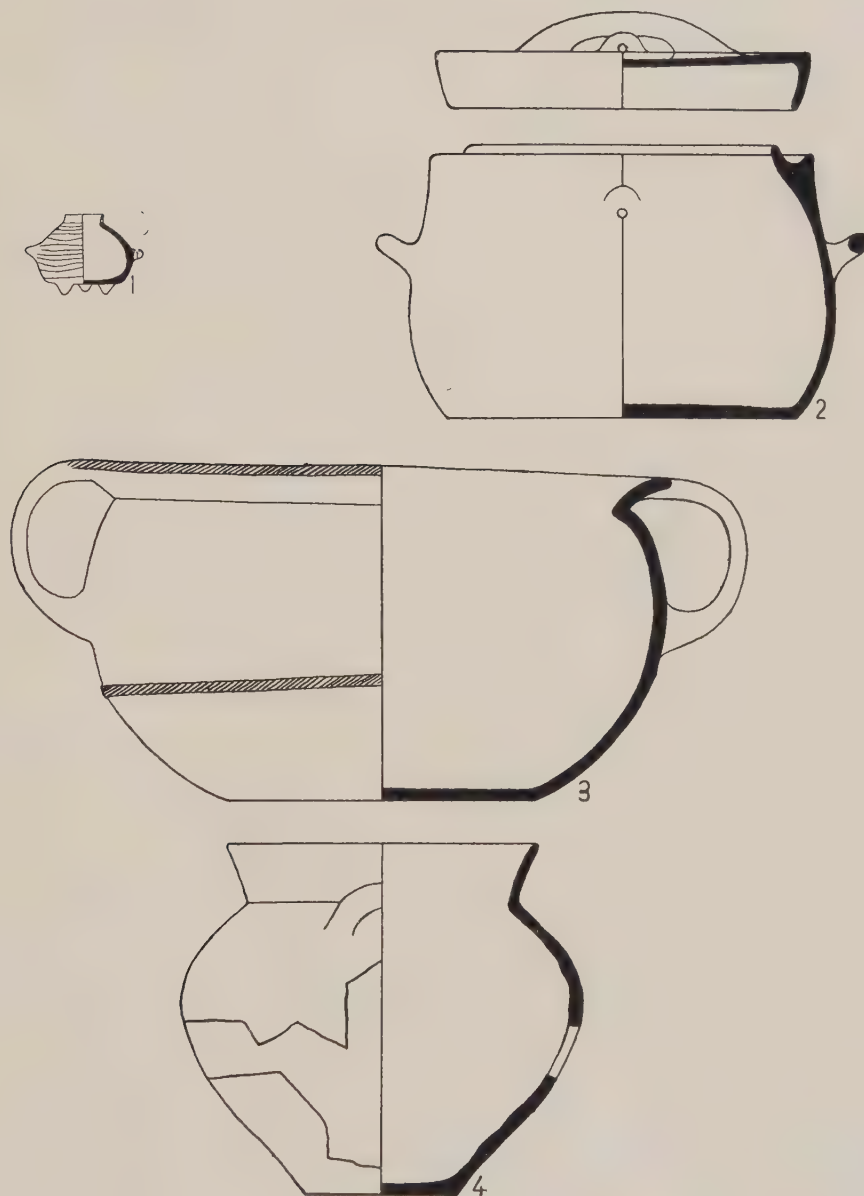


FIG. 8.—BOWLS.

Scale, 1 : 4.

and 8. Both these appear to belong to MM III rather than to MM I, but it is just possible that the one from Test 7 (Bowl 4) should be connected with the Archaic deposit there, and not classed as Minoan at all.

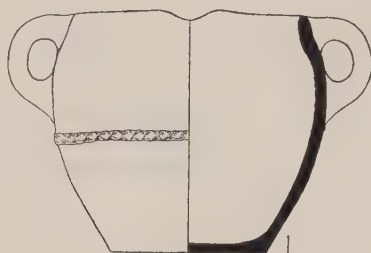


FIG. 9.—SPOUTED BOWL.

Scale, 1 : 4.

The spouted bowl from Test 12 (Spouted Bowl 1) is unusual in having side handles but a lip-spout. With a bridge-spout the shape begins in EM III,¹ and is common throughout MM I, but at that period occurs mostly in fine ware, and is generally decorated with paint, and not with moulding. The position of the moulding below the handles on this vessel

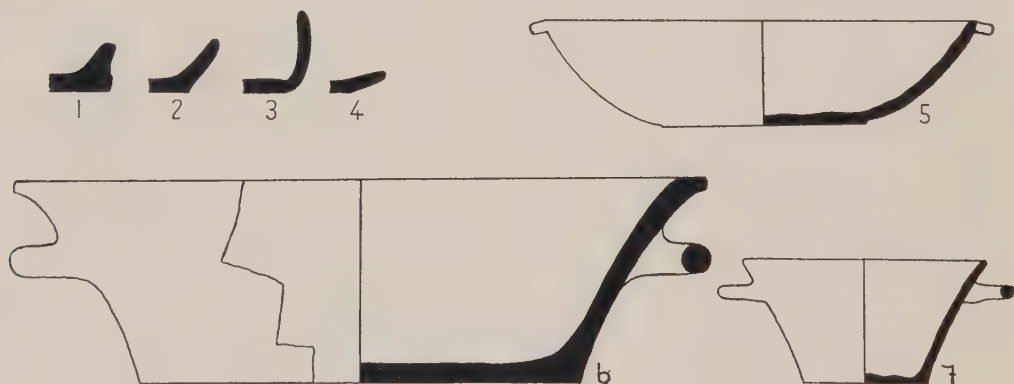


FIG. 10.—DISHES.

Scale, 1 : 4.

is similar to that of the moulding on Bowl 3, and this fact, together with its coarse fabric, make it most probably assignable to MM III.

Of the dishes, 5 is the most interesting. It resembles a common form of stone bowl which persisted from MM I to LM I, and of which there was an example from the same area in Test 9 (Stone 39). Its horned handles

¹ Cf. 208 from Trapeza, *BSA* XXXVI 44.

are evidently derived from those of these stone vessels, and its dark fabric shows it to be a conscious imitation of them. Unlike Stone 39, it has, however, a slightly offset base, which seems to be a late feature, and therefore, although this may have been made in MM I, it seems that it must itself be dated to MM III. The fact that, although easily breakable, a great deal of it was recovered, whereas most of the MM I pottery from the same test consisted of isolated sherds only, argues that it belongs to the latest period of habitation there. The two dishes with horizontal handles (Dishes 6 and 7) are easier to place, for the larger has an exact parallel from the House of the Sacrificed Oxen at Knossos,¹ which is clearly dated to MM IIIb, and the two are too similar in everything but size to be separated. Sherds from another of these dishes were found in Test 12.

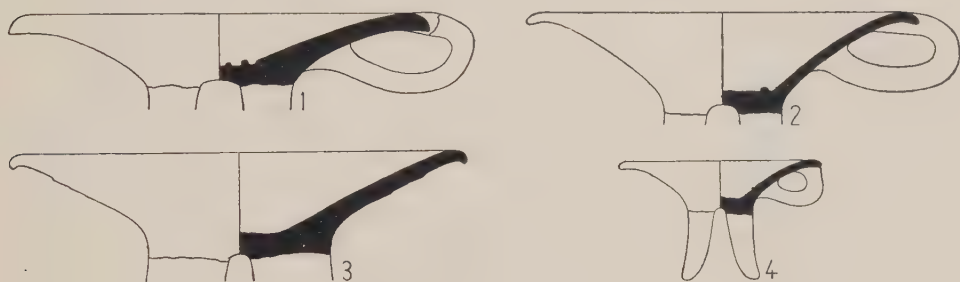


FIG. 11.—TRIPODS.

Scale, 1 : 4.

Tripod dishes with lustrous paint on their interior are the commonest individual type found on the Kastellos. As well as the more or less complete specimens (Tripods 1-4), sherds from others occurred in Tests 7, 8, 9, 12, 13, 14, 15 and 16. Unfortunately no legs or handles could be fitted to the otherwise restorable examples. The legs seem in general to have been long in comparison with the diameters of the dishes, and the handles usually looped like those attributed to 1 and 2, but there are several stick-handles which appear to come from similar vessels. They do not seem to have been used as lamps, since they never show any trace of burning. They are paralleled in shape, but not in decoration, by tripods in red ware from Palaikastro,² and from Gournia,³ which may well be as late as LM I, but considering how little LM pottery was found on the Kastellos, and that none of it was from Test 9, where the majority of these tripods were brought to light, it seems reasonable to assign them to MM III. The decorated legs (Tripods 5 and 6) have no parallels outside Lasithi, but the second of them is very similar to certain legs subsequently found on Karphi, and it

¹ *P of M II* 304 Fig. 176 F.² *BSA IX* 324 Fig. 24, 2.³ *Gournia* 30 Pl. II. 47. This is described as having 'red body-paint, hand-polished.'

is possible that it should really be assigned to the post-Minoan Intermediate Period,¹ although it is more probable that, like most of the Kastellos material, it belongs to MM III, and is merely an instance of the duration of local types.

The spouted lamps (Lamps 1 and 2) have MM I prototypes,² but these lack the conical bases of the present examples and are less well formed. The type continues into LM I, but on the later specimens the rim is generally

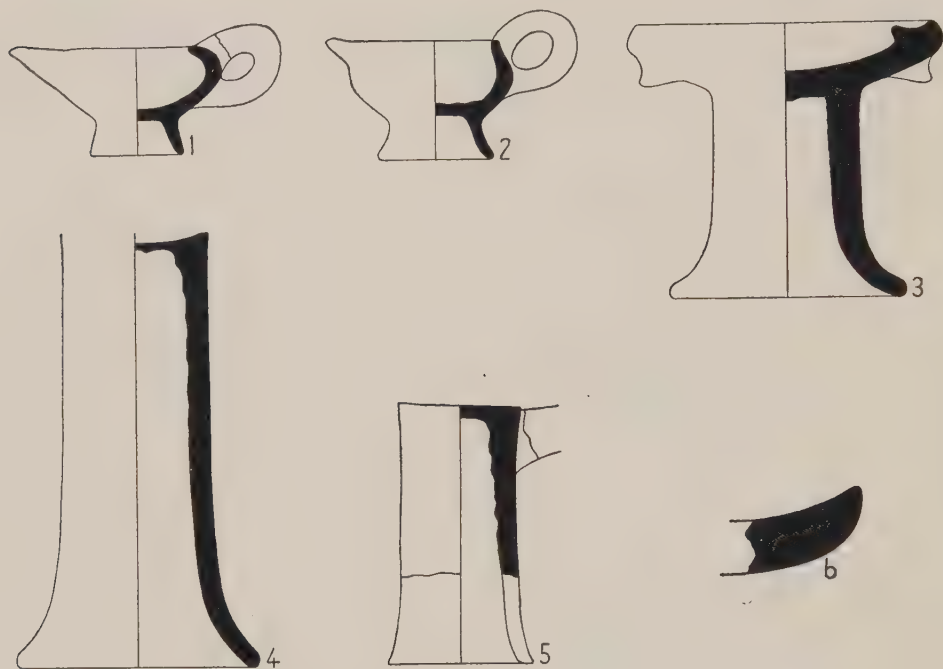


FIG. 12.—LAMPS.

Scale, 1 : 4.

turned up sharply.³ Frequently there are bosses on the shoulder, but this seems to occur regardless of date,⁴ so that the fact that the Kastellos lamps do not possess any is immaterial. The rim of 2, which was found in Test 9, and therefore likely to belong to MM III, is turned up more than that of 1, and this may argue that it is the later of the two, but both should fall within the same period. A fragment from a similar vessel occurred in Test 12. The pedestalled lamps (Lamps 3-6) are evidently a common

¹ For the use of the term 'Intermediate Period,' see p. 134 below.

² 'Εφ. Ἀρχ. 1906 149 Pl. 10.

³ Gournia 30 Pl. II 47.

⁴ Cf., for instance, *Festos* p. 388 fig. 236 and the LM example already quoted from Gournia.

type, for as well as those described in detail, sherds from others, similar, were found in Tests 3, 9, 12 and 15. They resemble many stone and a few clay specimens from other sites,¹ and are of a shape which seems not to occur before MM III, but certainly continues into LM I. It is likely, from their weight and their surface polish, that the present examples are meant to imitate stone, and 4, with its extraordinary thickness and dark colour, is remarkably like a dish or lamp in serpentine from Mallia.² The lamp or brazier 7 with an irregular rim and a stick handle, belongs to a well-known type which appears in MM III,³ continues in use throughout

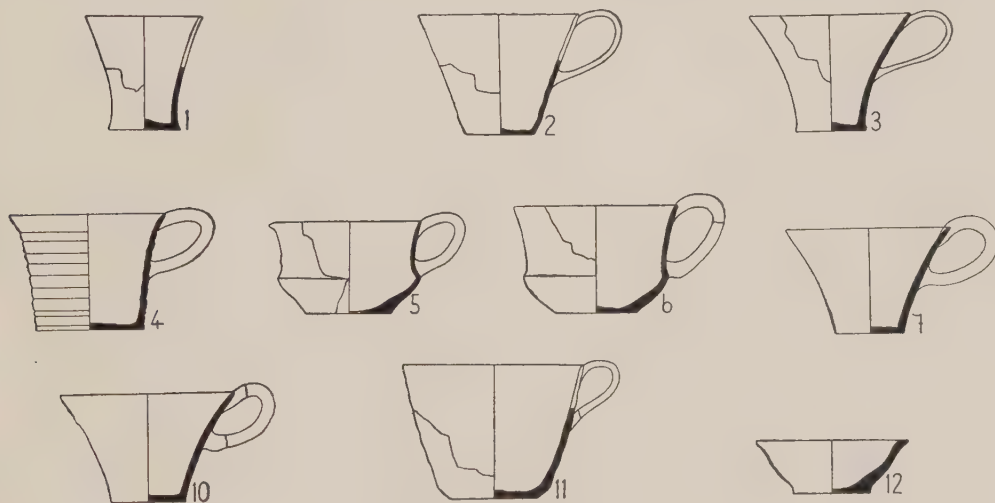


FIG. 13.—CUPS.

Scale, 1 : 4.

LM times,⁴ and even persists, at least in Lasithi, until the subsequent Intermediate Period, for several examples of it have been found on Karphi. The present specimen may, indeed, be contemporary with these last, for it resembles them even in the detail of the incised lines round the rim; on the other hand, it may, like the tripod leg 6, only furnish evidence of the way in which common shapes persist.

Only three comparatively whole cups (Cups 10–12) can be assigned to MM III, and the first of these probably belongs to the beginning of the period, since it differs from the MM I cups only in respect of the concentric striations on its base, and the fast wheel was in use at Knossos by MM II.⁵

¹ BSA IX 327; Gournia 30 Pl. II 75; Mallia II 40 Pl. XXI b. and CM 8472.

² CM 2111.

³ BSA XXVIII 292 Pl. XXII.

⁴ Ibid., IX 324 fig. 24, 3; *ibid.*, VI 105 Fig. 31. Gournia 30 Pl. II 29.

⁵ P of M I 589.

Other bases with similar marks occurred in Tests 3, 4, 9 and 12. 11 has an exact parallel from Knossos,¹ and also recalls cups from Palaikastro,² on which it was noticed that the paint was poor and often reddish in colour. The handleless cup (Cup 12) should, from its shallowness, date from the end of MM III,³ and may be compared with a cup from the Trapeza Cave (550).



FIG. 14.—JUGS.

Scale, 1 : 4.

The 'Khamaizi pot' (Jug 4) is one of the most interesting objects from the Kastellos. The class of vessel to which it belongs has already been discussed at length and shown to be attributable in general to MM I.⁴ The present example is, however, both larger and finer in fabric than is usual, and the ridging in its interior shows that it was made on a fast wheel. The uneven height of its collar, which almost has the effect of a spout, is also an uncommon feature. It was found in Test 9 inside a pithos which, although possessing MM II connections, is probably to be dated to MM III, and it is difficult to see how it can be earlier than this. It can

¹ *P of M I* 590 Fig. 434.³ *P of M I* 589 Fig. 432.² *BSA IX* 303 Fig. 1, 8.⁴ *BSA XXXVI* 76 ff.

only be explained by the fact that in Lasithi pottery types appear to have persisted longer than in other parts of Crete. The jugs with cut-away spouts (Jugs 5-7) are again in the direct line of descent from EM vessels, but they have MM III parallels,¹ and are of a shape which, with minor modifications, was in use throughout Minoan times. It is unfortunate that the pattern on 5 does not show more clearly, but it seems to have consisted merely of connecting spirals round the shoulder.² These three jugs were all made on the fast wheel, and fragments from others similar occurred in Tests 7, 9 and 12.

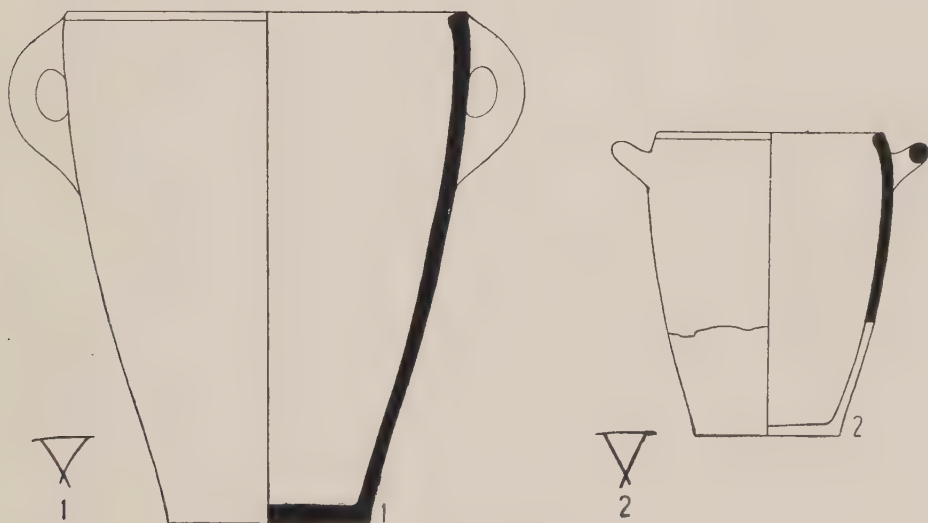


FIG. 15.—JARS.

Scale, 1 : 6.

The two jars from Test 9 (Jars 1-2) are of the elongated type which, as has already been stated, is characteristic of MM III. They recall vessels from the N.E. Magazines and from the Magazine of the Lily Vases at Knossos,³ but are chiefly interesting for the incised sign which they bear (see below). Fragments from many similar jars, some inscribed, were found in Test 9, and there are a few from Test 7. The pinched-necked amphora (Jar 3) belongs to a common class which has been found on practically all sites dating from MM III to LM I,⁴ but the sides of the

¹ *P of M II* 304 Fig. 176 *d*.

² This is a common MM III *b* decoration. *P of M I* 557 Fig. 404*f*. and 578 Fig. 422.

³ *Ibid.* I 568 Fig. 414 and 578 Figs. 420, 421.

⁴ *Ibid.* I 569 Fig. 414; *BSA* Supp. I 64; *JHS* XIII 250; *Festos* 148 Fig. 69.

Kastellos examples seem to have been unusually thin, for although the necks of others occurred in Tests 9, 12 and 15, all are broken off at the shoulder.



FIG. 16.—SPOUTED JARS.

Scale, 1 : 4.

The spouted jug-like jar (Spouted Jars 1) is paralleled at Palaikastro, and both it and that with horizontal handles (Spouted Jar 2) are again, like Jars 1 and 2, rather tall for their diameter. The cylindrical type (Spouted Jars 3-5) with an inner ledge for the lid is less usual, but must be compared with the fragments of stone jars from Test 9, and with whole specimens

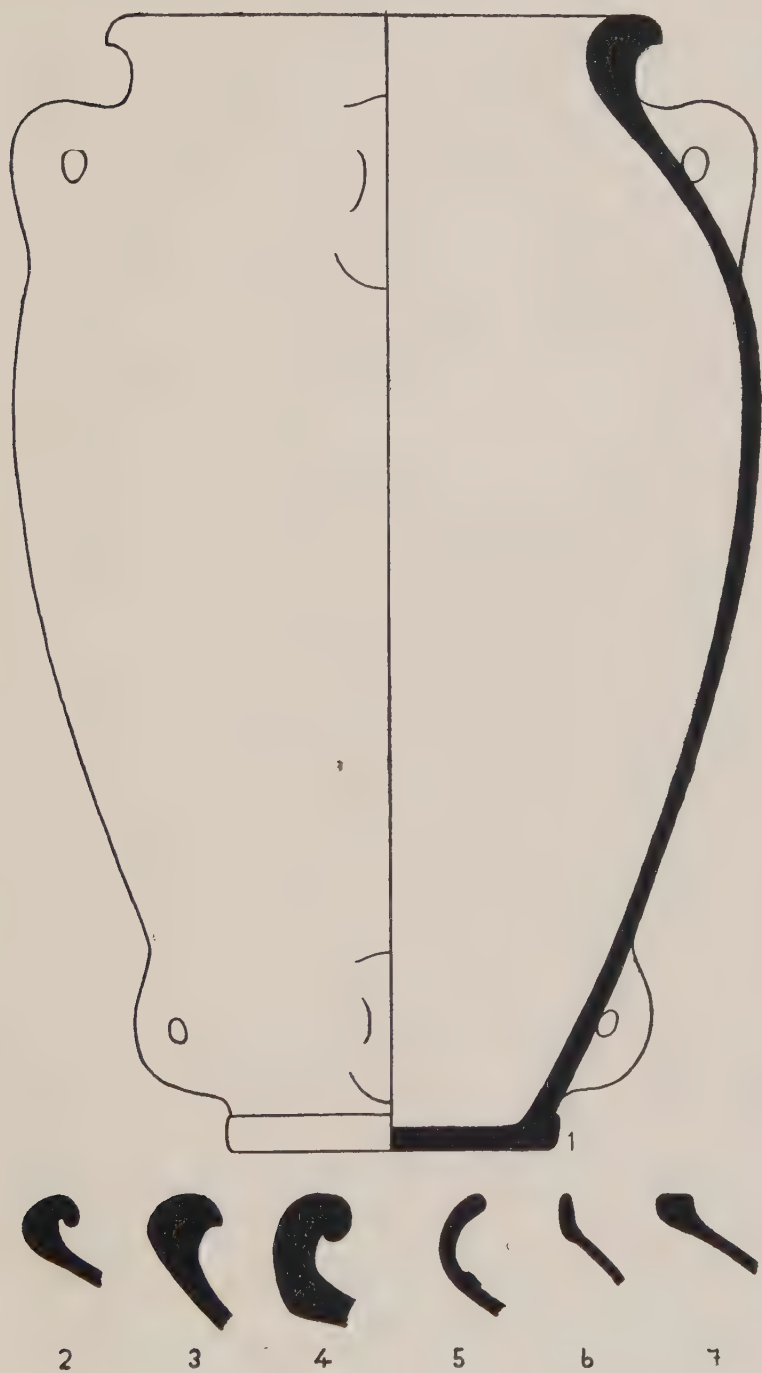


FIG. 17.—PITHOS.
Scale, 1 : 6.

in the same material from Mallia.¹ These last generally have bridge-spouts and no inner ledge, and thus resemble LM I clay vessels from Palaikastro.² Of the present examples 3 was found inside the house in Test 9 and is similar in fabric to the dish 6, while the lustrous paint on 5 is like that on the tripods 1-4, so that there seems to be no doubt that they belong to MM III.

Sherds from pithoi occurred in all tests, but the only one which could be restored is from Test 9 (Pithos 1). This finds its closest parallel in the painted pithos from the early magazines at Phaistos,³ which can be dated to MM II. It is therefore the only vessel from the Kastellos which stylistically might be attributed to this period, but considering that although broken it was sufficiently complete to suggest that it had been used during

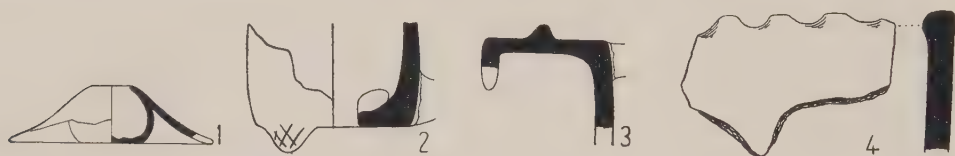


FIG. 18.—MISCELLANEOUS.

Scale, 1 : 4.

the last occupation of the house by which it stood and which undoubtedly contained MM III*b* pottery and that it is markedly different from the MM I pithoi of Trapeza, it seems safest to regard it as MM III; on the other hand, it must not be forgotten that the 'Khamaizi pot' (Jug 4) was found inside it, and it may have survived from at least the very beginning of the period. Six or more other pithoi are represented from the same test (Pithoi 2-7), but are too fragmentary for their exact shape to be determined. Their rims are, however, equally unlike those from Trapeza, and all are presumably also MM III.

The clay objects grouped as Miscellaneous are all enigmatic. The 'fire-box' is, indeed, a perfectly well-known type both in Crete and Melos,⁴ but its use has never been satisfactorily explained. The present example was evidently meant to stand with its collar projecting downwards, since its bowl has a flat, unpierced base, but its counterparts from elsewhere have always been regarded the other way up. It is also finer than usual in fabric, and shows no traces of burning. The 'base' (Miscellaneous 2) is quite inexplicable. It bears some resemblance to one end of the object

¹ It goes back to an EM II type (*AJA* XIII 279 Fig. 2, 3), and occurs in MM I (*Gournia* 38 Pl. VI 16), but the inner ledge is a later addition.

² *BSA* VIII 315 from House B.

³ *Festos* 325 Pls. XXXVI-XXXIX; *P of M* I 234 Fig. 176.

⁴ *BSA* IX 323; *JHS* XXIV 258 Fig. 34; *Phylakopi* 261 Fig. 188.

known as Ariadne's Clew Box,¹ but may have been from some quite different type of vessel. The 'rim' (Miscellaneous 3) is equally obscure. The 'spit-stand' (Miscellaneous 4) has parallels from Palaikastro and Phylakope,² and a complete example from the former site shows the type to have consisted of a flat rectangular base, about 40 × 30 cms., with the two longest sides turned up at right angles for some 10 cms. and finished at the rims by a series of notches. Its purpose is less clear, for neither it nor any of its counterparts in the Candia Museum show any signs of burning, and it is difficult to see how anything could have been satisfactorily turned on a spit the edges of which projected so little. The sherd (Miscellaneous 5) is included here because it shows a new type of rope decoration. It is quite uncertain to what shape of pot it belonged, and its date is equally doubtful.

Sherds were found from no fewer than six inscribed vessels (Inscriptions 1-6), two of which could be restored (Jars 1-2), and also a number of small, thick fragments with rough scorings, apparently on the inner side, which may have formed part of inscriptions, but of which only two (Inscriptions 7 and 8) were considered large enough to be worth preserving. All but one of the former are from Test 9, but the latter occurred in Tests 1, 4, 7, 13 and 15. Five of the inscribed vessels bear one sign only, resembling a Δ upside down, but on the sixth this sign seems to have been followed by other writing. The single sign is one already recognised as belonging to Linear Script A;³ and unless it can be equated with the ordinary Δ mark it has no hieroglyphic prototype, and should not therefore be earlier than MM III.⁴ It is unlikely that it should be so equated, since, as well as being placed the opposite way up, the crossing of its downward strokes seems to be deliberate, and this is never the case with the Δ. It does not appear to be very common in Crete, although found on a clay label from Knossos, the handle of a jar from Phaistos⁵ and a rim from Mallia,⁶ but in Melos there are several examples of it on coarse domestic vessels.⁷ On the Kastellos it was found only on jars of the type of Jars 1 and 2. It is always placed near the rim, either next to one of the handles or half-way between the two, and was evidently inscribed while the clay was wet, by the potter rather than by the eventual owner of the jar. Its meaning is quite unknown. It may denote the name of the potter, although in this case it is a strange coincidence that it should occur both in Lasithi and in Melos; it may describe the contents of the jar, but, if so, would more probably have been

¹ *P of M* II 308 Fig. 179.

² *BSA* IX 327; *Phylakopi* 262 fig. 189.

³ *P of M* I 642 Fig. 476 sign 71.

⁴ In *P of M* I (p. 642 Fig. 476 sign 71 and p. 640 n. 2). These signs are given separately, although in *Scripta Minoa* (227 sign 130) they seem to be identified.

⁵ *Festos* 417 fig. 245. It is here compared with a mason's mark from Mallia.

⁶ F. Chapouthier, *Les écritures minoennes au palais de Mallia*, 86 fig. 30.

⁷ *Phylakopi* 80 n. 1 sign I 14.

added when the use to which this was to be put was certain, and not have been made before baking; it may signify a measure of quantity, and although it occurs on vessels of different size, the fact that Jar 1 would hold about twice as much as Jar 2 is perhaps an argument in favour of this theory, for the actual number of units might either have been too obvious to need description, or else have been added in some other way.¹ The extra sign which in one case occurs with it (Inscription 6) is too incomplete to identify, but seems also to belong to Linear Script A. It is more finely incised than usual, and may have been scratched on after baking, but the sandy clay of this particular jar makes this almost impossible to determine. At all events, these inscriptions prove that the art of writing had penetrated to Lasithi, even if in some respects it lagged behind the great Minoan centres.

Kastellos.

- Test 9. Inside N.W. Room. Bowl 2 (Pl. VI, 2, 3, Fig. 8).—Bowl in soft fine buff clay without slip or decoration. The rim is double, with a groove between the two projections, into which the lid (2a) fits. There are two horizontal handles nearly half-way down the sides, and between them, near the outer edge of the rim, two vertically pierced lugs. The vessel is fairly regular in shape, but seems to be hand-made.
- Test 9. Outside N. Wall. Bowl 2 a (Pl. VI, 2, 3, Fig. 8).—Circular lid of similar fabric to 2, into which, although found the other side of the wall of the house, it exactly fits. The top is slightly concave, and the sides turn down sharply to a vertical rim. In the centre is an arched handle, and at either side, at the angle of the rim, two vertically pierced lugs corresponding with those on 2, and evidently meant for tying bowl and lid together.
- Test 9. Outside N. Wall. Bowl 3 (Pl. VI, 3, Fig. 8).—Bowl in coarse, light-brown clay with a thin, much-worn slip. The sides are rounded and curve in towards the top, but the rim itself flares back sharply. The large strap-handles reach from the rim to nearly half-way down the side. The edge of the rim is decorated with a series of diagonal slashes, giving the appearance of a rope, and below the handles there is a raised band with a similar pattern. The vessel is hand-made and irregular in shape, so that neither rim nor moulding is really in a horizontal plane.
- Test 7. Bowl 4 (Fig. 8).—Bowl in dark gritty clay without slip or decoration. The body is roughly globular. The rim flares back, but not so sharply as does that of 2. On the shoulder are two arched, horizontal handles. Distinct, though widely spread, ridging inside shows that the vessel was made on a fairly fast wheel. The rim and base do not actually join, but seem likely to belong to the same vessel.
- Test 12. 0.80–1.10. Spouted Bowl 1 (Pl. VI, 1, Fig. 9).—Bowl in coarse dark clay without slip. The sides are rounded and curve in slightly towards the top. There are two vertical handles reaching from the rim to nearly half-way down the side, and between them the rim is pulled out and down to form a trough spout. Below the handles there is a raised band, alternately pinched up and flattened so as to give the impression of a rope. The vessel is hand-made and rather irregular in shape, so that

¹ It is interesting to note that this sign, together with a variation of the Palace sign, occurs on a bronze double axe which was seen in 1938 and said to come from Kardhamoutsá. See above, p. 1. It is not impossible that in this case it represented a measure of weight.

the moulding does not run quite horizontally round the vessel. One handle is restored.

- Test 9. Outside N. Wall. Dish 5 (Pl. VI, 1, Fig. 10).—Open dish in dark, gritty clay without slip, but with traces of a rather thick black lustrous point, both inside and out. The base is slightly offset, and the sides curve up. At the rim there are two "horned" ledge handles. The vessel stands higher at one side than at the other, but from the ridging of its inner surface appears to be wheel made.
- Test 9. Outside N. Wall. Dish 6 (Fig. 10).—Sherds from dish in coarse orange-brown clay with a thin, much-worn slip. The sides are slightly flaring, and there are two horizontal handles nearly half-way down. Hand-made.
- Test 12. 1.10–1.40. Dish 7 (Pl. VI, 1, Fig. 10).—Small dish in coarse dark clay without slip or decoration. The shape resembles that of 6, but the vessel is not so wide, and has its handles set on rather higher up the side. Hand-made.
- Test 7. S.E. quarter below 0–50. Tripod 1 (Pl. VI, 1, Fig. 11).—Tripod dish with flaring sides in rather coarse red clay, with a smoothed slip covered by dark lustrous paint varying in colour from red to black on the inner surface, but with the outside left plain. At the centre, inside, are two raised concentric rings, the outer of which is the more distinct. The lower part of the handle has been restored. The legs are missing.
- Test 9. Outside N. Wall. Tripod 2 (Pl. VI, 1, Fig. 11).—Tripod dish similar in shape and fabric to 1, but with only one ring inside at the centre. Handle and legs restored.
- Test 9. Outside N. Wall. Tripod 3 (Fig. 11).—Tripod dish similar in shape and fabric to 1, but without any rings inside at the centre. Handle and legs missing.
- Test 9. Outside W. Wall. Tripod 4 (Pl. VI, 1, Fig. 11).—Tripod dish similar in shape and fabric to 1, but without any rings inside at the centre and smaller. The legs are restored.
- Test 9. Outside N. Wall. Tripod 5 (Pl. IV, 4).—Heavy tripod leg in plain red ware with a raised band down it, alternately pinched up and flattened so as to resemble a rope. Part of the inner surface of the vessel to which this leg belonged remains, and does not seem to have any slip or paint, so that it must come from a vessel of different type from 1–4.
- Test 8. 0–0.50. Tripod 6 (Pl. IV, 4).—Heavy tripod leg in plain red ware with a deep circular depression at the top near where it joined the base of the vessel, and two grooves, one on either side of this, running down nearly its full length.
- Test 14. Surface (bought). Lamp 1 (Pl. VI, 2, Fig. 12).—Lamp in black gritty clay with a finer slip which has been slightly polished. The base is pedestalled, but fairly low. The sides curve in sharply at the rim. At the back there is a heavy, round handle, and opposite to this a trough spout. The fabric is so dark that marks of burning could not show. The lower part of the handle is restored.
- Test 9. Outside N. Wall. Lamp 2 (Pl. VI, 2, Fig. 12).—Lamp in coarse brownish clay with a thin, smoother slip. The shape resembles that of 1, but the rim does not curve in so sharply. The interior is blackened all over, as though from burning.
- Test 9. Outside N. Wall. Lamp 3 (Pl. VI, 2, Fig. 12).—Pedestalled lamp in coarse brownish clay, with a thick finer slip and traces of lustrous black paint, most of which has now worn off. The wall is very thick throughout. The foot is high and hollow, with the inner surface left rough above. The top is shaped like a shallow bowl, with a double rim, forming a groove near the edge, but with two gaps in the inner projection, for the wick. The base and top were probably made separately, since, when found, they had split apart. The top is much blackened, as though from burning.
- Test 9. Outside N. Wall. Lamp 4 (Pl. VI, 2, Fig. 12).—Tall, hollow foot, probably from lamp similar to 3, which it resembles in fabric. The surface of the top is not slipped or glazed, but is fairly smooth and flat (the edges are only slightly broken), so that the bowl of the lamp to which it belonged cannot have been very securely

attached. There is some blackening down one side, as though from an overflow of burning oil.

Test 12. 0-0.80. Lamp 5 (Fig. 12).—Part of tall, hollow base, probably from lamp similar to 3, which it resembles in fabric, but with the beginning of a handle near the top. This handle may have curved round to join the bowl of the lamp, or else have been merely a stick-like projection. The side is blackened, as though from burning. The base is less symmetrical than that of 3 or 4, and the foot is missing, so that the height is uncertain.

Test 13. 0-1.30. Lamp 6 (Fig. 12).—Heavy rim of dark grey clay with a thick slip and traces of black paint similar to that of 3. The rim is simple, but from its blackening and the resemblance of its fabric to that of 3-5 seems to be from a lamp.

Test 8. 0-0.50. Lamp 7 (Pl. VI, 2).—Part of lamp in coarse reddish clay blackened in the centre, as though by burning. There is a stick handle at the side, and the rim is pushed in towards the centre of the vessel at the point where this is attached. On the inside of the rim are six incised lines.

Test 9. Outside N. Wall. Cup 10 (Pl. V, 3, Fig. 13).—Cup of similar shape and fabric to Cup 7, but with concentric striations on the base. Handle partly restored.

Test 9. Outside N. Wall. Cup 11 (Fig. 13).—Base with part of side and handle of cup in fine pinkish-buff clay, showing traces of a reddish, semi-lustrous wash on both inner and outer surfaces. There are no distinguishable striations on the base, but the ridging of the sides suggests that the vessel was made on a fast wheel. The handle seems to have been ribbon-shaped.

Test 9. Outside N. Wall. Cup 12 (Pl. V, 3, Fig. 13).—Shallow, handleless cup in fine buff clay with traces of a dark wash on both inner and outer surfaces. Concentric striations on the base.

Test 9. Outside N. Wall. Jug 4 (found inside Pithos 1) (Pl. V, 3, Fig. 14).—Small jug in fine light clay with the surface slightly polished and a decoration of cross-hatched incision round the neck. The neck is collar-shaped, but not quite horizontal at the rim, being highest opposite to the handle, which consists of a small, horizontally pierced lug, and thus almost giving the impression of a spout. The knob and the very distinct fine ridging inside the vessel show that this was made on a fast wheel, although all striations on the base have been obliterated by polishing.

Test 9. Outside N. Wall. Jug 5 (Pl. V, 3, Fig. 14).—Jug with cut-away spout in sandy, reddish clay, with a thin worn slip. There are traces of a dark wash on the outer surface and extending inside the neck, on which there seems once to have been some spiral decoration in white paint. Concentric striations on the base.

Test 9. Outside N. Wall. Jug 6 (Fig. 14).—Base and part of neck and shoulder with handle of jug in sandy, orange clay without slip or decoration. The shape is similar to that of 5, but the vessel is smaller. There are no striations on the base, but distinct ridging on the inner surface of the body suggests that the vessel was made on a fast wheel. The end of the spout is missing, and the base and shoulder do not quite join, although certainly belonging to the same vessel.

Test 9. Outside N. Wall. Jug 7 (Fig. 14).—Spout, handle and part of side of jug in fine greyish-buff clay, with a dark wash on the outer surface and extending inside the neck. The wall is thin, and shows distinct ridging both inside and out, due to the use of a fast wheel. The base is missing, and the lower part of the side does not quite join the shoulder, so that the shape is uncertain.

Test 9. Outside N. Wall. Jar 1 (Pl. VI, 3, Fig. 15).—Tall jar in rather coarse, light red clay without slip or decoration. There is a slight groove below the rim and vertical handles, high up, at either side. Immediately to the left of one of these handles is a sign, incised before baking, resembling a Δ upside down (see Inscription 1).

Test 9. Outside N. Wall. Jar 2 (Pl. VI, 3, Fig. 15).—Top of jar of similar fabric and shape to 1, but with a smoother surface and smaller. The handles are horizontal, and between them there is the same incised sign as on 1 (see Inscription 2).

- Test 9. Outside N. Wall. Jar 3 (Pl. IV, 2).—Neck of amphora in gritty reddish clay with a thin, lighter-coloured slip. On the shoulder and round the rim there are wide lines in matt brownish paint. The neck is pinched in laterally where the handles were attached, but the handles themselves have now split off. None of the body remains.
- Test 9. Outside N. Wall. Spouted Jar 1 (Pl. VI, 3, Fig. 16).—Jar in coarse, dark red clay, with a thin, much-worn slip. The rim is pulled out to form a spout, opposite to which there is a round, vertical handle high up on the vessel. Hand-made. The top of the handle is restored.
- Test 9. N.W. Room. Spouted Jar 2 (Fig. 16).—Top of jar in coarse reddish clay without slip or decoration. The rim is slightly pulled out to form a spout, and there are horizontal handles high up at either side. Hand-made. The base has been restored.
- Test 9. Outside N. Wall. Spouted Jar 3 (Pl. VI, 3, Fig. 16).—Bucket-shaped jar in fine, rather flaky, dark buff clay, greyish at the core. The outer surface seems to have been slightly polished. The rim has a groove below it outside and a narrow ledge inside, except at one point, where there is a trough spout. At either side there are horizontal handles, but one of these had split off and is now restored in plaster. From the ridging inside the body, this vessel appears to have been made on a fairly fast wheel.
- Test 9. N. Wall. Spouted Jar 4 (no illustration).—Base and part of rim of jar similar in shape to 3, but in paler clay, which is so flaky that it has split like slate at the breaks. There are traces of dark lustrous paint on the surface. Distinct ridging inside suggests the use of a fast wheel.
- Test 9. N.W. Room. Spouted Jar 5 (Pl. VI, 3, Fig. 16).—Jar resembling 3 in shape, but larger, and in coarse orange-buff clay without slip or polish. As well as horizontal handles at the sides, there is another, smaller and lower down, opposite to the spout. Hand-made.
- Test 9. Outside N. Wall. Spouted Jar 6 (Pl. IV, 4).—Fragment from jar in coarse red clay with the rim turning in sharply at rather less than a right angle to the side, and pulled up at one point to form a spout, at the side of which there is a small knob. Too little remains to tell the exact size or shape of the vessel, but it appears to be wheel-made.
- Test 9. Outside N. Wall. Pithos 1 (Pl. VI, 4, Fig. 17).—Pithos in coarse orange-red clay with a lighter slip, which has mostly worn off. When this vessel first appeared, a trickle design in matt dark red paint could be made out on the shoulder, but this is now hardly discernible. There are four vertical handles immediately below the rim and four more above the base.
- Test 9. N.W. Room. Pithos 2 (Fig. 17).—Rim of pithos of similar fabric to 1. Diameter *c.* 33 cms.
- Test 9. N.W. Room. Pithos 3 (Fig. 17).—Rim of pithos of similar fabric to 1.
- Test 9. N.W. Room. Pithos 4 (Fig. 17).—Rim of pithos of similar fabric to 1.
- Test 9. N.W. Room. Pithos 5 (Fig. 17).—Rim of pithos in finer buff clay, apparently without slip. On the shoulder there is a raised band with rather irregular vertical slashes.
- Test 9. N.W. Room. Pithos 6 (Fig. 17).—Rim of pithos or pithoid jar of similar fabric to 5, but without decoration.
- Test 9. N.W. Room. Pithos 7 (Fig. 17).—Rim of pithos in similar clay to 1, but apparently without slip.
- Test 9. Outside N. Wall. Miscellaneous 1 (Pl. IV, 4, Fig. 18).—Small "fire-box" in red ware without slip or decoration. This consists of a globular bowl with a flat base and a long, projecting collar turned out and down. The end of the collar is missing, but it must have reached to about the level of the base. Concentric striations on the base and spiral ridging inside show that this vessel was made on a fast wheel.
- Test 9. Outside W. Wall. Miscellaneous 2 (Fig. 18).—Three sherds from a circular vessel in coarse clay without slip or decoration. There is a hole in what appears to

be the base in the making of which two lumps of clay have been pushed up inside, opposite to one another. Outside there is the beginning of a handle flush with the base, and on the base itself opposite to this two projections close together, which bear rough incisions. Hand-made.

- Test 9. Outside W. Wall. Miscellaneous 3 (Pl. IV, 4, Fig. 18).—Fragment in coarse clay, smoother on the outer surface than within, perhaps from the top of a jar, with a square shoulder and a rim overhanging inside. If this is the case, the side turns in at right angles to a flat top, on which there is a projecting ring, possibly to keep a lid in place, and beyond this turns down again to the rim. The sherd might equally well be regarded, the other way up, as some kind of base with a central hole.
- Test 8. 0-0.05. Miscellaneous 4 (Pl. IV, 4, Fig. 18).—Two fragments of “spit-stands” in coarse clay without slip or decoration. These consist of flat slabs of clay, the upper edges of which are grooved by being pressed down at intervals. The height and breadth are uncertain, since neither example is complete.
- Test 2. Below stone pavement. Miscellaneous 5 (Pl. IV, 2).—Sherd in rather coarse clay, grey on the outer surface, but red within, and decorated with an elaborate moulded design. Too little remains to tell the size or shape of pot to which this belonged.
- Test 9. Outside N. Wall. Inscription 1 (Fig. 15).—Inscribed sign consisting of a triangle standing on its apex with the diagonal lines crossing one another below (see Jar 1).
- Test 9. N.W. Room. Inscription 2 (Fig. 15).—Inscribed sign similar to 1 (see Jar 2).
- Test 9. Outside N. Wall. Inscription 3 (Pl. IV, 5).—Inscribed sign similar to 1 occurring on a jar like Jars 1 and 2, but too fragmentary for reconstruction.
- Test 7. Inscription 4 (Pl. IV, 3).—Inscribed sign similar to 1, but like 3, occurring on a jar too fragmentary for reconstruction.
- Test 9. Outside N. Wall. Inscription 5 (Pl. IV, 5).—Inscribed sign similar to 1, but smaller, and apparently occurring on a rather smaller jar than 1-4.
- Test 9. Outside N. Wall. Inscription 6 (Pl. IV, 5).—Sign similar to 1. The inside of the triangle has in this case split out. Next to this to the right there is another sign, which is incomplete. The jar on which these occur is of the same shape as Jars 1 and 2, but in thinner ware.
- Test 9. Outside N. Wall. Inscription 7 (Pl. IV, 5).—Sherd with two incised lines, apparently on the inside, which may represent an inscription. Too little remains to tell the type of jar to which this belongs.
- Test 14. Surface. Inscription 8 (Pl. IV, 5).—Sherd similar to 7.

LM I-LM III.

Very little LM pottery was found during the season of 1937, and most of this is too incomplete for it to be certain to which subdivision of the period it belongs. From the north side of the Kastellos (Tests 2 and 3) there are a handful of sherds, from stirrup vases and goblets, which are later than MM III, but which may be of any date between that and the end of the Minoan Age. Nothing which can be definitely assigned to LM I came to light, and the Palace Style of LM II is certainly unrepresented.

LM III.

(Plate IV, 3; Fig. 19.)

On the Terrace 20 metres east of the Trapeza Cave the remains of a larnax burial were found, but these were very near to the surface, and the

pottery is consequently broken and incomplete. The most important vessel represented is that described as Bowl 5. This appears to have parallels from Gournia¹ and Palaikastro,² and in shape must have closely resembled a LM IIIa 'barrel pithos' from the latter site.³ Unfortunately too little remains for its decoration to be properly made out, but this seems to have been in the panelled LM IIIa style, which is perhaps best illustrated by two alabstra with bird designs from Phaistos.⁴ With these connections both for shape and pattern there can at least be little doubt that it belongs to LM IIIa. The other pottery from this deposit includes sherds from two or more stirrup vases, a stemmed goblet, an open dish and several small cups, but all these are too fragmentary for any sort of reconstruction. The

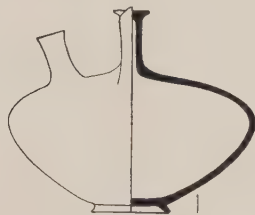


FIG. 19.—STIRRUP VASE.

Scale, 1 : 4.

larnax itself was evidently of the usual chest type,⁵ standing on four feet, and possessing a gabled lid; its corners are, however, more rounded than is common.

On the Terrace 20 metres west of Trapeza the workman who unearthed the MM I sherds already referred to also came on a stirrup vase during the winter of 1936-37. This (Stirrup Vase 1) is of the squat shape characteristic of LM IIIb. It may have come from another interment, but of this no traces could be found.

Terrace 20 ms. E. of Trapeza (larnax burial). Bowl 5 (no illustration).—Sherds from large, square-shouldered bowl or pyxis in rather coarse but well-baked buff clay with finer slip outside. The sides come up almost at a right angle to the base. The body is cylindrical. At the shoulder the sides turn in sharply, and then up to form a low collar neck, over which a lid could fit. There are two horizontal handles at the angle of the shoulder, concave from without and with circular depressions at either end where they join the vessel. The decoration is in dark lustrous paint, and is arranged in panels, consisting partly of a series of wavy horizontal lines between straight vertical ones, and partly of some more elaborate design. Too little remains to tell either height or diameter.

¹ *Gournia* 46 Pl. X 5 and 40.

² *BSA* Supp. I 94 Fig. 79.

³ *Ibid.* Supp. I, 100 Pl. XXIII c.

⁴ *P of M* IV 337 Fig. 280.

⁵ *BSA* Supp. I 152, *ibid.* XXVIII 247 Figs. 24, 26, etc.

Terrace 20 ms. W. of Trapeza. Stirrup-vase 1 (Pl. IV, 3, Fig. 19).—Stirrup vase in fairly fine pinkish-buff clay, which probably once bore a painted design that has now vanished. The base is offset, and the body rather squat. There are two handles only, one at either side of the false neck. No air-hole is apparent, but the vessel is restored, and not all the sherds were recovered.

Archaic.

A certain amount of pottery from Test 7 on the Kastellos belongs to the Archaic Greek period. This consists mainly of sherds from pithoi, in plain red ware, with the rims turned out and down, so as to overhang the sides. Similar pithoi were subsequently found at Donadhes, and since those from the Kastellos have no connection with the main occupation of the site, they will be treated in a future article, together with the rest of the Archaic material from the district.

F. *Metal.*

(Plate III, 3.)

Two tools of bronze were found, and one was bought. The provenance of all three is the Kastellos. The scraper (No. 14) was found on the floor of the west room of the house in Test 7 (G. 20). The deposit was mixed, but the object in question clearly belongs to the main period of habitation, MM III. It is very thin, and the bottom ridge is worn irregularly to one side by use. Whether the rounded point at the top was fitted into a handle or was merely gripped by the finger is uncertain; probably the latter is the case, since there are no traces of rivets or rivet holes.

The curved knife (No. 24) was found in the unstratified dump, Test 8 (F. G. 15). The latest possible date to which it could be assigned is the transitional MM IIIb–LM Ia period, but it almost certainly belongs to MM I or MM III proper—probably the latter, which formed the predominating part of the deposit. I know of no similar tool in any way comparable at this date. The nearest approach are the curved knives from Vrokastro of Intermediate Period date.¹

The double axe (No. 376) was bought. It was said to come from a terrace half-way down the west slope. It might be MM I or MM III; the type varies little in these two periods, but the fact that the blade flares slightly at each end inclines one to assign it to the later period.² It is

¹ *Vrokastro* Pl. XXI I and J. One is of iron.

² Cf. MM I axes from Khamaizi *P of M I* Fig. 141 *d* and *e* with MM III axes from Knossos. *Ibid.* II Fig. 392, 5.

identical in shape with an inscribed example seen in the hands of a peasant and said to have been found at Kardhamoutsa (see above, p. 1).

Test 7. West room above floor. 14 (Plate III, 3).—MM III. Bronze scraper. Length 4.4 cms., breadth 2.4 cms.

Test 8 24 (Plate III, 3).—MM III. Curved bronze knife. Single edge. Two rivets. Length 7.7 cms., breadth 1.2 cms.

Bought. Said to come from a terrace on the west slopes. 376 (Plate III, 3).—MM III. Bronze double axe. Length 15.3 cms., breadth at edge 5.8 cms.

G. *Stone-Work.*

(Plate III, 1, 2; Figs. 20, 21.)

A. *Vases.*

Thirteen bases, mostly in fragments, and six lids were found on the Kastellos. The strata in which they were found were usually mixed, the limits, however, being MM I—MM III. Even where, as in the case of the lids 27, 28, 33 and 34, the deposit was comparatively pure MM III, the facts that habitation was continuous and that objects of hard stone continue in use for many generations after they are made preclude us from dating these finds with certainty to MM III. Dating therefore must be on stylistic grounds. It may, however, be said at once that no vase of the Early Minoan Period was found.

Several vases gave a strong impression of belonging to MM I, owing to the stone of which they were made, their small size and their resemblance to MM I vases from other sites.¹ 26 is a small 'bird's-nest' vase. The profile is the same as that of a vase from Mikhlos in breccia, and it resembles also one from Platanos and one from Gournia in the same material.² Knobbed lids of the type of 27, 33, 34 and 48 go with this class of bowl, but continue in use in MM III. The very small lid of alabaster, 28, probably covered an alabaster jar of Egyptian shape such as that found at Porti, and there dated to MM I.³ The handle, 12, comes from a cup of MM I type.⁴ The open bowls 18 and 39 find their nearest parallels at this date,⁵ though such vessels continue to be made in MM III, and 51, which was found in a pure deposit of that date, may be a case in point.⁶

The rest may be dated with some degree of certainty to MM III. The

¹ It is on the whole safe to say that the use of variegated stone dies out with MM I. Xanthoudides noted the small size of stone vases of this period at Khamaizi. 'Εφ. Ἀρχ. 1906, 150.

² *Mochlos* p. 38 Pl. IX, IIIa; *VTM* Pl. XII 1741; *Gournia* Pl. V 24.

³ *VTM* 65 Pl. XXXIX, 1057.

⁴ Cf. *loc. cit.* 1064 also Pl. LIV 1884.

⁵ *Ibid.* Pl. XXXVIII 1063 (Porti); *Gournia* Pl. V 11. *Pseira* p. 36 Fig. 16.

⁶ *Mochlos* 47 Fig. 18, IV 1, and a number of unpublished examples from Mallia.

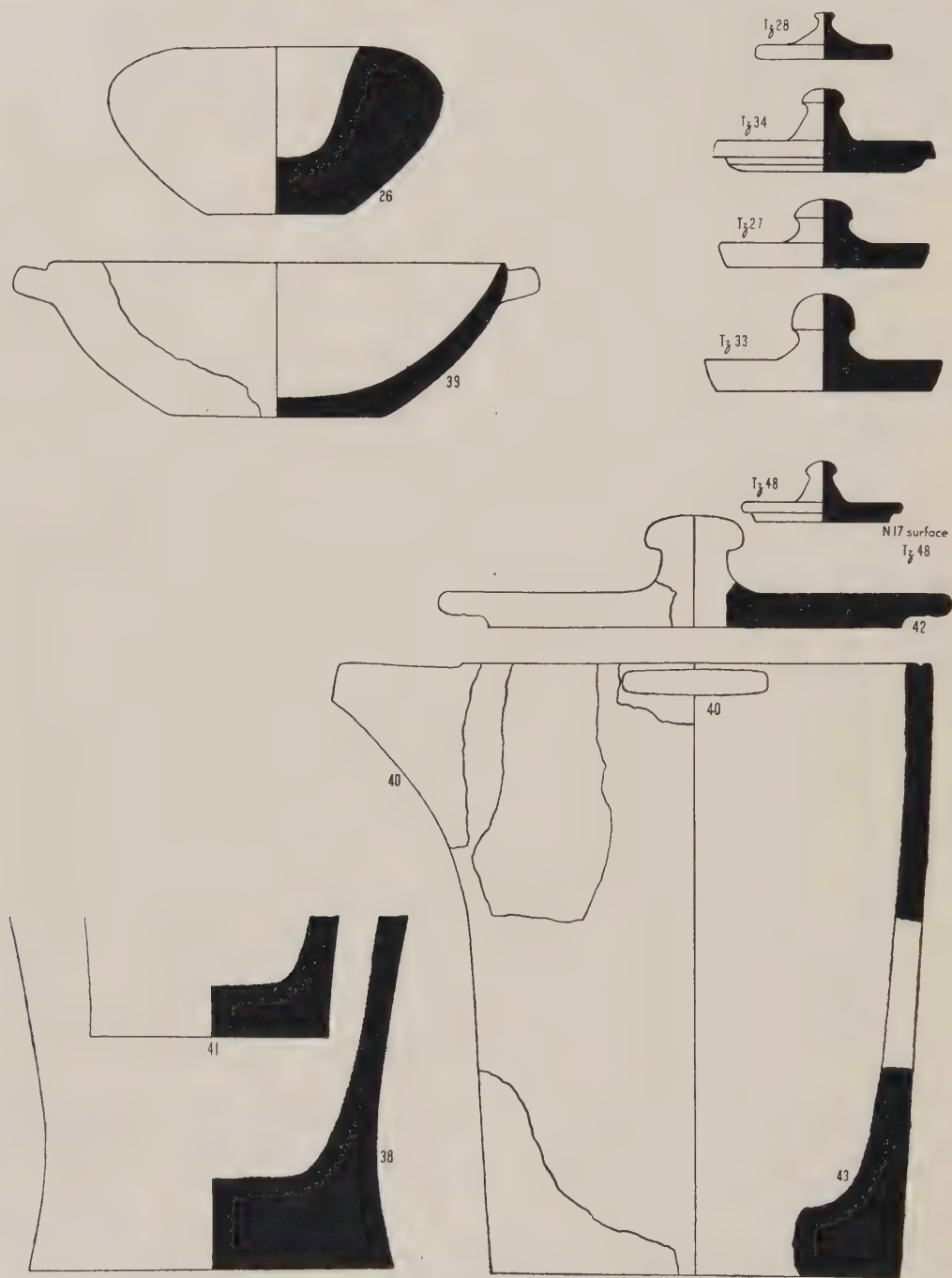


FIG. 20.—STONE VASES.

Scale, 1 : 2.

unfinished 'blossom bowl', 28, is of a type which begins in MM III and continues into LM I with a gradual heightening of the shoulder.¹ Vessels with straight and slightly concave sides are known in MM I.² The bases 19, 38, 41 and 50, however, cannot be dissociated from the nearly complete specimen 40 and 43, with 42 as a lid. This is almost exactly paralleled by a clay vase from the same house, whose date is clear (see above, page 36, Spouted Jar 3).³ The elongation of shape is typical of MM III.

B. Tools.

Parts of two stone axe-heads were found. No. 2 is of very hard, smooth, green serpentine, the lower end and part of a fine edge alone surviving. Its context was chiefly Middle Minoan, and may be another example of the way in which such tools continued in use for centuries after their manufacture.⁴ No. 129, however, was found in the late Neolithic grave in Test 4. Both are of the short type, which continues in use during EM I.⁵

The objects 3 (with 4), 5, 6 and 52 are probably hones or whetstones. 3 is remarkably thin, and the end is rounded off almost to a cutting edge. 5 and 6 taper to the end, and are square cut. Since in all three cases the context ranged from EM to MM III, it is impossible to date them closely, though the scantiness of the EM deposit makes one lean to the MM Period. 52, however, was found in a comparatively pure MM III stratum. The surviving end is triangular and pierced.

No parallel to 3 is known. 5 and 6 have many parallels in the Messara which seem to range from EM II to MM I in date.⁶ 52, with its pierced triangular end, resembles an object from the MM I-II house at Kalathiana.⁷ This is described as an amulet by Xanthoudides, but is almost certainly a hone with a hole for suspension. In the days of bronze anyone who was constantly using his knife must frequently have needed a sharpener.⁸

¹ BSA XXVIII 151.

² VTM Pl. XXXIX 1033 1062; Mochlos Fig. 32 XX 3; Trapeza BSA XXXVI 112. Gournia unpublished, CM 510.

³ Many examples were found at Mallia with and without spouts. They are unpublished.

⁴ For examples from MM contexts VTM Pl. XLVI 1351 and 1351a from Kalathiana. A good many similar axes were found in the city of Karphi, which dates from the Intermediate Period, c. 1100-900 B.C. They are clearly not of contemporary manufacture, and were probably chance finds like the MM I stone vases which were found on the same site, see p. 122.

⁵ P of M.

⁶ VTM Pl. XXIII (Koumasa) XXXIX (Porti) XLIII (Dhrakonais). All these are pierced. Page 20, however, mentions unpierced examples.

⁷ Ibid. Pl. XLIII B. 1352 p. 84.

⁸ Cf. similar objects from Karphi p. 124 below.

Part of a long pestle, 49, was found. It is of very regular cylindrical shape. Its nearest parallel is a more irregular example from Gournia which tapers upwards, but widens at the top to form a handle.¹ This must date at earliest from the transitional MM IIIb-LM Ia Period. Our example is almost certainly MM III.

Fragments of obsidian blades came from several tests and from strata ranging from Sub-Neolithic to MM III. Such blades are, of course, common on most Bronze Age sites in the Aegean, and no difference in technique has been noticed which could serve as a distinction of provenance or date. No cores were found.

35 is a globular lump of limestone flattened on the upper and lower surface. The polish on these flattened surfaces is so high that it seems better



FIG. 21.—CHERT.

Scale, 1 : 1.

to regard it as a polisher rather than a pounder. Its date is MM III. 44 is by contrast completely rough, and is clearly a crusher of some sort. It has an exact parallel from Gournia, which is called a corn crusher.² Parallels from the same site can be quoted for the rounded pounder (55) from Test 7.³ Several other examples, all of much rougher fabric, were found.

11 is a blade of red chert slightly veined with white. For a description of it we are indebted to Mr. M. C. Burkitt of Cambridge and Dr. J. Wilfred Jackson of Manchester. Preservation: unrolled and unpatinated. Primary flaking: made on a flake, there being a tiny faceted striking platform; main flake surface bulbar scar etc.; primary flaking on the upper surface mostly destroyed by secondary flaking. Secondary flaking: the upper surface has been largely covered with small, narrow flake scars due to pressure flaking; the right-hand side is much steeper and shows signs of some battering; the tool is pointed at one end, and the butt is somewhat thinned by the removal of several flakes; altogether the fine pressure

¹ *Gournia* Pl. III 52.

² *Loc. cit.* 49.

³ *Loc. cit.* 39.

flaking is largely confined to the left-hand side, the cruder flaking occurring on top and to the right hand. Purpose: awl, or, if hafted, a small lance-head. Two similar examples from the Aegean are known, both in the Finlay Collection at Manchester. One is a graver from the Piraeus called by the Abbé Breuil 'probably Aurignacian'.¹ The other is from Missolonghi. Our example, however, can hardly claim any very great antiquity.

A. Vases. I. Lids.

- Test 9. Outside N. Wall. 27 (Pl. III, 2, Fig. 20).—MM I-III. Grey, speckled steatite. Knobbed. Diameter 5·8 cms.
 Test 9. Outside N. Wall. 28 (Pl. III, 2, Fig. 20).—MM I. Alabaster. Knobbed. Diameter 5·8 cms.
 Test 9. N.W. Room. 33 (Pl. III, 2, Fig. 20).—MM I-III. Grey, speckled steatite. Knobbed. Diameter 6·6 cms.
 Test 9. N.W. Room. 34 (Pl. III, 2, Fig. 20).—MM I-III. Grey, speckled steatite. Knobbed, bevelled below. Diameter 6·3 cms.
 Test 9. Outside W. Wall to S. 42 (Fig. 20).—MM III. Grey, speckled steatite. Knobbed, ledge below. Diameter 14·4 cms (belongs to 40 and 43 below.)
 Area of Test 14 (bought). 48 (Pl. III, 2, Fig. 20).—MM I-III. Grey steatite, black streaks. Knobbed, bevelled below. Diameter 4·5 cms.

II. Cylindrical Vases.

- Test 9. Outside W. Wall to S. 40 and 43 (Pl. III, 2, Fig. 20).—MM III. Fragments of straight-sided, spouted jar. Grey speckled steatite. Spout open, ledge handle. Lid no. 42 above probably belongs. Height 17·2 cms. Diameter at base 11·4 cms.
 Test 9. Outside W. Wall to S. 41 (Pl. III, 2, Fig. 20).—MM III. Base of similar vase. Diameter 6·6 cms.
 Test 9. Outside W. Wall to S. 38 (Pl. III, 2, Fig. 20).—MM III. Base of similar vase. Diameter 11·0 cms.
 Test 8. 19 (no illustration).—MM III. Base of similar vase. Diameter *c.* 15·0 cms.
 Test 14. 50 (no illustration). MM III. Base of similar vase. Too small to measure.

III. Bird's Nest Vase.

- Test 9. Outside N. Wall. 26 (Pl. III, 2, Fig. 20).—MM I. Veined grey limestone. Height 4·7 cms. Diameter 9·8 cms.

IV. Blossom Bowl.

- Test 8. 25 (Pl. III, 2).—MM III. Green serpentine. Fragment of unfinished vase. Height 8·0 cms. Diameter 11·5 cms.

V. Open Bowls.

- Test 8. 18 (no illustration).—MM I. Grey steatite. Fragments of two bowls.
 Test 9. Outside W. Wall to S. 39 (Pl. III, 2, Fig. 20).—MM I. Dark-grey steatite. Fragments of two bowls. Ledge handles. Height *c.* 4·5 cms. Diameter *c.* 14·5 cms.
 Test 13. 0-1·30. 51 (no illustration).—MM I-III. Fragment of similar bowl. Same material, sharper rim.

¹ Burkitt *Prehistory* 1921 p. 115.

VI. *Cup.*

Test 7. 0-50. 12 (no illustration).—MM I. Grey steatite. Part of handle.

B. *Tools. I. Axes.*

70 metres E. of Trapeza Cave. 2 (Pl. III, 1).—Neolithic to EM 1. Serpentine. Part of blade. Short type. Length 5.7 cms.

Test 4. 1.30-1.60. 129 (Pl. III, 1).—Neolithic. Hard black limestone. Butt. Width 4.7 cms.

II. *Whetstones.*

Test 4. 0-1.00. 3 and 4 (Pl. III, 1).—EM III-MM III. Grey limestone. Two fragments. Rounded end. Lengths 8.5 and 4.7 cms.

Test 2. Below pavement. 5 (Pl. III, 1).—MM I-III. Grey slate or schist. Square ends. Length 12.5 cms.

Test 2. Below pavement. 6 (Pl. III, 1).—MM I-III. Same material and type. Length 9.6 cms.

Test 16. 0-0.75. 52 (Pl. III, 1).—MM III. Same material. Pierced top. Length 4.9 cms.

III. *Pestle.*

Area of Test 14 (bought). 49 (Pl. III, 1).—MM III. Green veined limestone. Cylindrical. Length 4.5 cms.

IV. *Obsidian Blades* (Plate III, 3).

Test 3. 0-0.30. 7. Eight blades.

Test 7. Outside S Wall. 17. Two blades.

Test 9. Outside N. Wall. 29. One blade.

Test 9. N.W. Room. 36. Three Blades.

Test 12. 1.10-1.40. 47. One blade.

V. *Rubbers.*

Test 9. N.W. Room. 35 (Pl. III, 1).—MM III. Grey-green limestone. Globular, flattened and polished top and bottom. Diameter 5 cms.

Test 9. Outside W. Wall. 44 (Pl. III, 1).—MM I-III. Veined grey limestone. Square with rounded edges and corners. 4.2 by 4.4 cms.

VI. *Pounder.*

Test 7. W. Room above lower floor at 35. 55 (Pl. III, 1).—MM I-III. Quartzite (?). Globular, very rough. Diameter 6.2-7.2 cms.

VII. *Chert.*

Test 6. 0-0.50. 11 (Pl. III, 3, Fig. 21).—Red chert blade. Length 4.0 cms. Breadth 1.4 cms.

H. *Figurines.*

(Plate IV, 1.)

Two figurines, both of animals, both of clay, were found on the Kastellos. No. 9 was found in Test 3, above, but not on, a floor level. With it were found a few sherds of Trapeza Ware, but the bulk of the

pottery was EM III-MM I. The surviving fragment consists of the fore-part of the animal only, the head and the lower part of the legs being missing. Though solid, it resembles most closely the MM I bull rhyton from in front of 'Tholos' B at Koumasa.¹ It should almost certainly be attributed to the same date. No. 23 also has close parallels from the same site and from Tylissos.² The latter parallel is not more accurately dated than to MM by the discoverer, but the former seem to have been fairly clearly of MM I date, which the mixed deposit of Test 8 by no means denies to the present object.

Neither of the figurines has any trace of decoration, though the paint, if there was such, may well have worn off in the course of time, and with the action of the soil.

Test 3. Above floor at 30 cms. 9.—MM I. Fragment of animal in clay. Length 6·8 cms., height 5 cms.

Test 8. 23 (Pl. IV, 1).—MM I. Animal figurine in clay, much worn. Length 6·8 cms., height 3·0 cms.

I. *Miscellaneous.*

(Plate III, 3; Figs. 22, 23.)

The beads were all, fortunately, found well stratified. 13 is clearly of MM III date, though it is of a shape which occurs as early as EM II,³ and is found as late as LM III, as is shown by 53. Exact parallels in shape material and date to 1 were found in the tombs at Liliana.⁴ Like the flattened cylinder, 54, the globular shape is peculiar to no particular date.



FIG. 22.—BEADS.

Scale, 1 : 2.

The conical and biconical clay objects described here as spindle whorls have been regarded by Tsountas and Stais as buttons, and this view is upheld by Mrs. Blegen.⁵ At the Argive Heraion they were found in great

¹ *VTM* 44 and Pl. XXX 4986.

² *Ibid.* 42 and Pl. XXX 5049 and 4309; *Tylissos Minoenne*, Fig. 37 unnumbered.

³ *VTM* 49.

⁴ *Scavi e Scoperti* 110.

⁵ *The Mycenaean Age* 174; 'Εφ. 'Αρχ. 1895 198; *Prosymna* 256.

numbers in the LH I and II graves. In LH III the numbers decreased considerably, and their place was taken by the smaller and neater cones and truncated cones of steatite resembling our 13 and 53 above.¹ The clay examples, however, seem far too clumsy for buttons, and the single hole does not lend itself to attachment to a garment. It is extremely doubtful also whether one can regard the steatite cones as buttons, for the same

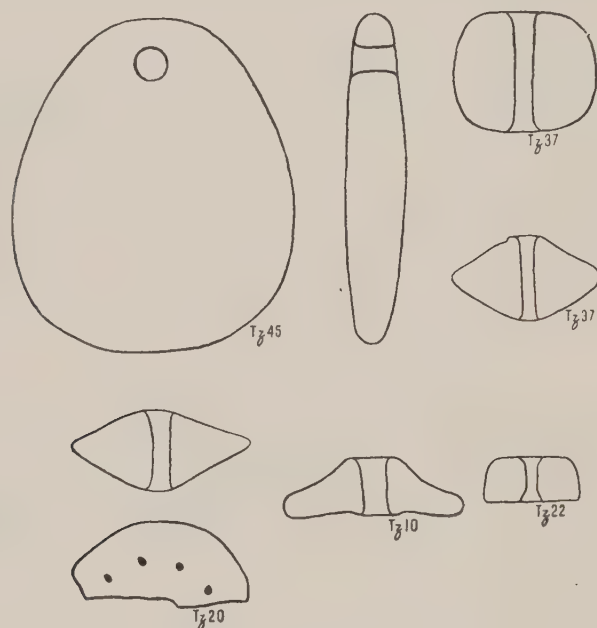


FIG. 23.—LOOM-WEIGHTS, ETC.

Scale, 1 : 2.

reason, and also because exactly similar objects were certainly used as beads in the contemporary Egyptian site of Tell el-Amarna.²

Most of the examples from Crete hitherto published belong to the Neolithic Period.³ A few were found in the transitional MM IIIb-LM Ia house at Sklavokampos.⁴ No conclusions seem permissible from a study of shape, and even the decoration of No. 20, which resembles closely an example from one of the Late Neolithic houses in the Central Court at Knossos,⁵ can hardly dissociate it from the bulk of the contents of the test in which it was found, MM III. The button-shaped whorl No. 22 from

¹ *Prosymna* 313.

² *City of Akhenaten* II Pl. L.

³ E.g. *P of M* I 42 Fig. 10; *Festos* I 93 Fig. 35; 98 Fig. 41.

⁴ Not mentioned in preliminary notice *JHS* 1930, 251.

⁵ *P of M* II 13.

Test 8 finds its closest parallels at the Intermediate Period site of Karphi.¹ The globular whorl, No. 37, is almost certainly of MM III date, and resembles one from Gournia.²

Both the weights seem to be safely stratified to MM III. They may be compared with other Middle Minoan weights from Koumasa,³ Khamaizi, Mallia, Sklavokampos and Palaikastro⁴ and of course the MM IIb examples from the Loom-weight Area at Knossos.⁵

The conch shell found in Test 9 may be compared with the contemporary example from a presumed shrine at Knossos.⁶

A. *Beads* (Plate III, 3, Fig. 22).

Kastellos.

Test 7. West Room. 0-0.50. 13.—MM III. Black steatite. Truncated cone. Height 1.4 cms. Diameter at base 1.9 cms.

Larnax burial 20 metres E. of Trapeza Cave. 1.—LM III. Red agate. Globular. Diameter 0.7 cm.

Larnax burial 20 metres E. of Trapeza Cave. 53.—LM III. Grey steatite. Truncated cone. Height 1.1 cms. Diameter 2.0 cms.

Larnax burial 20 metres E. of Trapeza Cave. 54.—LM III. Green steatite. Flattened cylinder. Diameter 1.7 cms. Thickness 0.6 cm.

B. *Clay Spindle Whorls.*

Kastellos.

Test 11. 1.20-1.60. 46 (no illustration).—Sub-Neolithic (?). Biconical. Height 1.8 cms. Diameter 3.0 cms.

Test 3. Below floor at 0.30. 10 (Fig. 23).—Sub-Neolithic (?). Conical. Height 1.7 cms. Diameter 4.7 cms.

Test 3. Above floor at 0.30. 8 (Pl. III, 3).—EM III.—MM I. Biconical. Height 1.8 cms. Diameter 3.5 cms.

Test 7. S.E. corner. 0.50-1.00. 15 (no illustration).—MM I. Biconical. Height 2.1 cms. Diameter 4.0 cms.

Test 7. W. Room, below floor at 0.35. 16 (Plate III, 3).—EM III—MM I. Biconical. Height 2.7 cms. Diameter 3.7 cms.

Test 8. 20 (Fig. 23).—Probably MM III. Biconical. Incised decoration. Height 2.1 cms. Diameter 4.4 cms.

Test 8. 21 (Plate III, 3).—Probably MM III. Biconical. Height 2.0 cms. Diameter 2.7 cms.

Test 8. 22 (Plate III, 3, Fig. 23).—Probably MM III. Button shaped. Height 1.2 cms. Diameter 2.5 cms.

¹ See below p. 129. An example in steatite, unpublished, is in the Candia Museum, from Agia Triadha.

² *Gournia* Pl. III, 6.

³ From the settlement and shrine.

⁴ All unpublished in the Candia Museum.

⁵ *P of M* I 253.

⁶ *Ibid.* 575, 581.

Test 9. Outside N. Wall. 31 (Plate III, 3, Fig. 23).—MM I–III. Biconical. Incised decoration. Height 2.0 cms. Diameter 3.9 cms.

Test 9. N.W. Room. 37 (Plate III, 3, Fig. 23).—MM III. Globular. Slightly flattened top and bottom. Height 3.2 cms. Diameter 3.7 cms.

C. *Clay Weights.*

Kastellos.

Test 9. Outside N. Wall. 30 (Plate III, 3).—MM III. Fragmentary. Probably square. Holes in corners. Width 10.4 cms. Thickness 3.5 cms.

Test 9. Outside N. Wall. 45 (Plate III, 3, Fig. 23).—MM III. Normal shape of loom-weight. Height 8.6 cms. Width at base 7.3 cms.

D. *Miscellaneous.*

Kastellos.

Test 3. Below floor at 0.30.—Claw of large bird, possibly an eagle.

Test 9. N.W. Room.—Tusk of boar. Fragments of Conch Shell.

KARPHI. A CITY OF REFUGE OF THE EARLY IRON AGE IN CRETE.

Excavated by Students of the British School of Archaeology at Athens,
1937-39.

Note.—It has been decided to publish the present report without delay rather than to await the completion of the study of clay objects and vases which were not mended by the end of the season of 1939. A detailed discussion of these will follow as soon as circumstances permit.

I. INTRODUCTION.

History of the Site.

THE site of Karphi, comprising Karphi proper, Mikre and Megale Koprana,¹ was discovered, like most prehistoric sites in Crete, by Sir Arthur Evans. In June 1896 he visited Lasithi and cleared one of the tombs at Ta Mnemata (see below, page 101).² With his usual generosity, he lent the writers the diary of his travels, which contained, besides other valuable information, an admirable sketch plan of the surface remains on Karphi and the Kopranas.

In 1935 Miss Money-Coutts and J. D. S. Pendlebury ascended from Kera to the West. The impression then gained from the sherds on the surface of the city site was that it was of Late Minoan date, an excusable mistake, as will be seen from the finds.

History of the Excavations.

In 1937, as one of a series of general tests carried out, after the excavation of the Trapeza Cave in 1936, to ascertain the distribution of antiquities in this part of the district of Lasithi,³ the Temple on the saddle and the first two tombs at Ta Mnemata were excavated; though the extremely rocky nature of the site held out small hopes of any great depth of soil, the finds were of such obvious importance that it was determined to attempt the clearance of the entire area.

In 1938 the rooms 2-57 were excavated, including the 'Great House,' undoubtedly the residence of the ruler of the city. In the same year six

¹ Καρφή of course means the 'Nail.' Κοπράνα is a word used in Crete for a steepish slope covered with turf. It has no connection with κοπρά, though the shape of the hills in question and the jokes of the workmen might have led one to think so.

² See *Academy* 20.6.96.

³ Trapeza. *BSA* XXXVI pp. 5 ff. Other tests above pp. 1 ff. and *ILN* 5.3.38.

more tombs were cleared at Ta Mnemata and a new group of four at Astividhero on the other side of the Koprana ridge. The whole hill of Karphi was purchased.

In 1939 the last nine tholoi at Ta Mnemata and rooms 58-150 on Karphi and Koprana were excavated. The spring of Vitzelovrysis was cleared and set in order. Here an inscription, composed by Professor D. S. Robertson and designed by Mr. Eric Gill, was set up to commemorate the work.¹ (Plate XXIV, 4.) On the saddle a small hut was erected for convenience in storing tools and for future use by a guardian of the site. The materials and methods employed in the building were precisely the same as those used on the ancient site, from which, indeed, all the materials but the wood came. This is not surprising, for, to judge by their ages, our two masons had probably built part of the ancient city.

By the end of the season the whole section of the city which lay on Karphi proper had been cleared, as well as a line of buildings running up to the summit of Mikre Koprana. This is probably less than a third of the whole site, since surface remains indicate the presence of buildings behind Mikre Koprana, along the ridge leading to Megale Koprana and covering the summit and upper slopes of the latter. Since, however, these remains clearly belonged to the same period as those of the excavated area, and since it was highly improbable that any new features of importance would appear, it was decided, in view of the great expense which would be involved, not only in the expropriation of the land, but also in transporting the debris to a suitable tip, to rest content with the complete, and almost certainly the most important, quarter of the city, described below. Future excavators should find no difficulty in fitting their plans to ours.

Methods of Excavation.

The number of workmen employed at a time varied considerably. There were never more than ten engaged on the actual excavation, though the unexpected depth of earth and the quantity of large stones to be removed, coupled with the distance which this debris had often to be carried, sometimes brought the total to over forty.

After a survey of the site had been made, the buildings were excavated, so far as possible, quarter by quarter,² and the rooms were numbered in order of excavation. Both in these rooms and in the tombs the numbers

¹

ὦ ξεῖν', εὖ μὲν πῖνε, χάριν δ' ἔχε τοῖσι τὸ πίστρον
δεύμασιν· χῆμῖν ἦν στόματ' αὐαλέα.

² The old Cretan word is ρούγα

“ Πέρα τὴν πέρα γειτονιάν, πέρα τὴν πέρα ρούγαν
ἐκλέψανε μίαν κοπελιάν μὲ τὴν χρυστὴν φτερούγαν.”

are, we hope, perpetuated in what is believed to be permanent colour. At first each room was excavated layer by layer in purely artificial strata of 20 cms. It soon became apparent, however, that there was no stratification in the chronological sense. The method then employed was to excavate down to the remains of the fallen ceiling (see below, page 67), to make a division there, and finally to clear the floor deposit. Additional tests were made below the floors of many rooms, round about foundations and in any other place where it seemed possible that information might be gained, all, unfortunately, in vain.

Owing to the bad construction of many of the walls and to the fact that the great pressure of earth on the Karphi side had pressed the north-south walls forward in a dangerous manner, a few repairs have been necessary.

Staff.

The following members of the British School and others assisted in the excavation.

Miss B. Bailey	.	.	.	.	.	.	1938
Mr. V. R. Desborough	.	.	.	.	.	.	1938
Dr. P. Dikaïos	.	.	.	.	.	.	1939
Mr. J. S. Last (Architect)	.	.	.	.	.	.	1939
Mr. R. S. Lavers (Architect)	.	.	.	.	.	.	1938
Miss H. L. Lorimer	.	.	.	.	.	.	1938
Miss M. B. Money-Coutts	.	.	.	.	.	.	1937-39
Miss M. Pascoe	.	.	.	.	.	.	1937-39
Mrs. H. W. Pendlebury	.	.	.	.	.	.	1938
Mr. J. D. S. Pendlebury	.	.	.	.	.	.	1937-39
Mr. W. F. Thompson	.	.	.	.	.	.	1938

Mr. Kh. Petrou of the Candia Museum was present for most of each season.

Mr. E. J. Armitage of St. John's College, Cambridge, drew out the final plans from the measured drawings of Messrs. Last and Lavers.

Where all have worked towards the results, it seems best to preserve the anonymity of the contributors, particularly since every section is the work, if not of several hands, at least of several minds.

Finance.

The excavations were made possible by the following grants. The Craven Fund, Cambridge University, subscribed £50 towards each of the three seasons; the Craven Fund, Oxford University, £100 in 1938 and 1939; the Seager Fund of the British School at Athens £150 in 1938

and £75 in 1939, and the Institute of Archaeology, London University, £10 in 1939.

It may be of interest to future excavators to record the proportion spent on various items.

Labour	Drachmae 203,500 (approx. £373)
Materials for work	25,000 { „ 45 10s. }
Materials for house	12,000 { „ 22 }
Drawing and photography	6,000 { „ 11 }
Transport	12,000 { „ 22 }
Expropriation and damages	14,000 { „ 25 10s. }
Architect's fees, etc.	7,000 { „ 13 }
Miscellaneous	20,000 { „ 37 }
Total	Drachmae 299,500 (approx. £549)

Labour was comparatively cheap. The daily rates varied, according to the state of the potato crop, as follows: men Drs. 55-65; boys, Drs. 40-50; girls, Drs. 35; mules, Drs. 50 a day, or Drs. 35 for long stretches; donkeys, Drs. 35 and 25; rent of the excavation house, Drs. 900 a month; keep of servants and foremen, Drs. 50 a day; keep of the staff (not included in the above), *c.* Drs. 600 a week.

Acknowledgments.

Our thanks are due to many. First and foremost to the Greek Archaeological authorities for their invariable help and courtesy. A particular debt is due to Dr. S. Marinatos, both as Ephor in Candia and as Director General at the Ministry; to Mr. N. Platon, his successor in Candia, and to Mr. Kh. Petrou, Assistant Director of the Candia Museum. The skill of Zakharias Kanakes, mender and restorer to the Candia Museum, can be seen from the photographs. The goddesses shown in Plate XXXI, which consisted of close on five hundred fragments apiece, are a triumph of his art. Next we must remember the local authorities of Tzermiadho, in which village we lived; the succession of jovial *proedhroi*; the schoolmasters who displayed such admirable enthusiasm not merely for the history of the antiquities, but also for accurate details of the finds and who many times brought their small scholars up the 1200-foot climb to be shown the latest discoveries; and, indeed, the whole friendly population whose welcomes and farewells, dances and parties remain such a splendid memory.

With the consent of the Committee of the British School, Mr. R. W. Hutchinson, Curator at Knossos, kindly lent the services of that invaluable foreman Emmanouel Akoumianos. No greater or more loyal help could have been given than we received from Manolakes, 'the Old Wolf.' We must also pay an affectionate tribute to the memory of Georgios Markogiannakes of Psykhro, the discoverer of the libation table in the Diktaian

Cave, a member of the dig at Knossos and latterly with ourselves. The death of that strenuous old man in the May of 1939 deprived us not only of a trusted servant, but of a very great personal friend.

Under the guidance of these two veterans a very fine team of workmen was built up. Not all can be mentioned by name, but Emm. Platys, 'Uncle Antony' Stakakes, Emm. Tzernias, Ioannes Moisakes and Ioannes Khalkiadhakes need no more fear comparison with the professional excavators of Egypt than the gigantic Evangeles Grammatikakes with an Olympic weight-lifter. We were fortunate also in finding a most efficient under-foreman in Ioannes Kontogiannes of Tzermiadho.¹

In the uncertain shadow of war it is like looking into another age to recall the days of the dig, the torch-lit dances we gave the village and that last grand dance given to the workmen and to the fathers of the village on the windy saddle of Karphi itself. The ground shook to the beat of the long, winding dances, and the red wine passed round the halls of the city as three thousand years ago in the wild days of the Iron Age Lords (Plate XXIII, 6).

II. THE SITE.

(Plates VII-XXVII.)

General Topography.

A detailed description of the district known as Lasithi, as well as of the ancient remains found in it, has already been given in the accounts of the present expedition's previous explorations.² A brief account therefore will suffice here.

The plain of Lasithi lies towards the east end of Crete, about 2800 feet above sea level, and is completely surrounded by the mountains known in antiquity as Dikte.³ It was thickly populated in antiquity, and the many tracks, practicable in all weathers for pack-animals, which led up to it from every direction kept it in touch with the outside world.

The hills which fringe the plain to the north are to-day drier and more inhospitable than those to the south. In ancient times, however, there is reason to believe that they were at least as well wooded. In the little

¹ Mention should also be made of the 'submerged tenth,' two Albanian murderers released from gaol on the Italian invasion, a lame sheep-stealer from Mt. Ida and an alleged leper from Cyprus.

² *BSA* XXXVI pp. 5 ff. Later additions to the list of sites there given are to be found above pp. 1 ff. See also a very good description, Kh. Petrou, *Κρητικές Σελίδες*, II 211.

³ In Strabo's time Dikte also referred to the Thriphte mountains and the hills in the far east of the island. For an explanation of the presence of two Diktes see 'Papers presented to Professor J. L. Myres,' *BSA* XXXVII p. 199.

upland plain of Nesimos, for instance, carbonised wood is found extensively immediately below the surface.

Dominating the west end of the northern side of the plain is the great shoulder of Megale Koprana, rising a good 1300 feet above the plain itself. Behind this are two steep peaks of much the same height, Mikre Koprana and Karphi, which tower over the lowlands of the north-west and command some of the easiest entrances to the plain.

Routes.

The approaches to the site are as follows.

1. *From the Plain.*—(a) Via the Archaic site at Gaitanou up a stony path which leads to the Nesimos plain. Bearing left across Nesimos, the path leads past the spring of Astividhero, reputedly the best water in Lasithi, though a mere trickle, and up past the second group of tholoi to Mikre Koprana.

(b) From the corner of the fields of Kerasa, called Methonia, up the ancient Roman, Venetian or Turkish paved *kalderim*, which winds its way over the saddle called Armos to Kera and Krasi. Before this saddle is reached, however, a more ancient track branches off to the right and ascends above the mills of Asphendami. Thence it runs along the west slope of Megale Koprana and reaches the spring, Vitzelovrysis, and the tombs called Ta Mnemata. At this point it becomes very steep, and eventually emerges on to the saddle between Karphi and Mikre Koprana.

Both these routes take under half an hour for the pedestrian and about three-quarters for a pack-animal.

2. *From Outside the Plain.*—(a) From Krasi a path ascends by the lime pit at Katsouprinokephale to the great screes called Khalasa, which fall sheer from the saddle. The path here has been broken away or covered by further falls of stone. Two or more tholos tombs, however, are visible at the base of the precipice. In antiquity, no doubt, the ascent was more regular, for it emerges on to the saddle in a gap between two rocks which has been artificially widened. It also seems as if rough steps had been set in position to facilitate the ascent.

From Krasi this route takes about an hour.

(b) From Apano Kera a track ascends direct to Ta Mnemata. It is not recommended to any but unencumbered pedestrians.

From Kera to the summit of Karphi has once been accomplished in 30 minutes—but never again!

Apart from these regular routes the site is practically inaccessible.

The Site.

The first consideration for any settlement is its water-supply. With a population running into thousands, as we shall see, the present supply seems woefully inadequate. We must remember, however, that the regular series of earthquakes of greater and less severity which have attacked Crete have often had the effect of drying up springs. Nor is it earthquakes alone. The increasing deforestation of the island has caused many places which were once fertile and prosperous to lapse into sparse pasturage.¹

At the present day the following supplies are available. First, Vitzelovrysis. This certainly constituted the most important source since it was actually built up (see below p. 98). It does not run fast nowadays, but a considerable quantity of water escapes before reaching the conduit, to break out into little trickles and muddy pools at Mikre Vrysis on the path below and Kato Vrysis right down near the main road to Kera. That the cliffs do contain water in abundance is evident from the fact that at one point it can actually be heard in the rock.

The other source which must be brought into relation with the city is Astividhero, which, as it appears from the rocks around, once ran considerably more strongly. It is, however, some way from the city.

A good source, though at too great a distance, is to be found by the chapel of Agios Georgios, the Asphendami spring on the road between Armos and Kera. This has probably collected much of the water which originally flowed through Vitzelovrysis.

From the presence of many fragments of pithoi and other large jars above the fallen roofs of the houses it seems as if, as to-day in the district, rain-water and snow were collected.

It may be noted, in passing, that both groups of tholos tombs (see below p. 100) are close to a spring, and it is not impossible that the unexcavated ones at the bottom of the Khalasa above mentioned may also have been near some source now choked with stones.

In the following general description of the city site, except in a few cases, its final condition alone is considered. In many cracks and hollows in the rock, however, there must still have survived the rough shelters (τειχήδαις) made by the first inhabitants while the city was being built.

Excavated Area.

The excavated portion of the site has been divided up into the various quarters into which it seems naturally to fall, whether owing to the position of the streets or to some thick wall which cuts one quarter off from its neighbour (Plate VIII).

¹ Cf. *Archaeology of Crete* pp. 6 f.

The path which leads up so steeply from the plain past the spring and the tombs arrives at a more level space slightly above the bottom of the valley. To its right is a compact group of rooms (130-3, p. 74 below). After another slight ascent it serves a line of single-roomed buildings, broken by an open courtyard. At the north end of these is a small square building which seems to guard the precipitous pathway up the Khalasa (2-7 and 145, p. 72 below). This group of buildings was fancifully labelled by the workmen the Στρατώναις (Barracks), as guarding the entrance to the city, and the name has stuck as a useful label.

On the saddle itself, a few yards from the guard-house, and standing on the very edge of the precipice, is the Temple (1) and its dependencies (19, 20, 38-41, p. 75 below).

A branch of the main pathway must have come up the bottom of the valley, below the sharp rocks which bound the 'Barracks' to the west. This branch must certainly have served some important building at the south end of the city, for the peasants speak of heavy foundations removed to make a field. At all events, the first building now served is 'The Great House' (8, 9, 11-18, p. 77 below). Before this is reached, however, the main street of this part of the city, Broad Road, branches off to the left. The path itself continues, north of the Great House, to the Temple on the saddle.

To the south of Broad Road is a block of store-rooms or 'Magazines' (22, 23, 29-31, 33-7, p. 79 below) built up against the rock. In front of these must have been a street running behind the hypothetical building mentioned in the previous paragraph.

Between the Great House and the Magazines, Broad Road ascends steeply to the Small Shrine (55 and 57, p. 84 below). Here it forks. To the north runs Temple Road East, now blocked by 70 and 71, but originally passing with a single turning (visible below 71) up to the Temple dependencies and branching west along the edge of the cliff as Cliff Road. The Southern or main branch first serves the public square, 48, where the village elders would sun themselves and whence the Southern Houses (24-8, 42-51) would be reached. Dare we suggest that 49 is a tavern? Beyond this the road again divides. One passage runs south-west, serving the Southern Shelters (62-5, 90-5, 98, 99, p. 92 below) and emerging on to the bare hillside. The main branch turns almost due north, serves the Priest's House (58-61, 80, p. 84 below), then turns west and enters what, until the intrusion of 86, 88, was an open square similar to 48. Thence West Road ran directly northward, originally perhaps to the edge of the cliff. Whether the final ascent of Broad Road, with its widely placed steps (πασσαμάκια), has been cut off merely by the building of 86, 88, or whether 113 is itself intrusive, it is hard to say. The former seems the most likely. From the square and from the upper part of Broad

Road both the Central West Block (66-9, 81-8, 96, 97, 100, p. 89 below) and the Cliff Houses (102, 106, 113-15, 120, 121, 126, p. 93 below) were reached. At the top access could be obtained to the Northern Shelters (104, 107-9, 122-5, p. 96 below), and to the open hillside which led up to the Fort (128) on the summit and to the Peak Sanctuary (p. 97 below).

To return to the eastern side of the valley. From the courtyard 4 a road ascends, which first branches off sharply to the left to serve the compact buildings of the Eastern Block (135-44, p. 70 below). The main line, however, continues south-east and serves the big building 146 (see p. 74 below) which has recently been destroyed to make a field, a fate suffered by many buildings in this area. Beyond 146 it winds up to the ridge below Mikre Koprana. Isolated on the summit of this peak is the large structure 147-50 (see p. 69 below). It is not likely to be a watch-tower, like the smaller structure on Karphi itself (128), since it commands no different view, and is clearly a building of more importance.

Unexcavated Area.

The east slopes of Mikre Koprana are covered with the remains of houses as far as the sharp descent a little above the Astividhero tombs. This line continues as far south as the east side of the ridge between Mikre and Megale Koprana. This ridge also was thickly inhabited wherever the ground was suitable. The first part of the slope up to Megale Koprana, seems to be too rough ever to have been settled. The upper part, however, as well as the whole broad summit, shews quantities of remains, both of walls and of pottery. On the summit itself is a big building consisting of at least two rooms. This was first noted by Sir Arthur Evans, and has since been scratched by peasants, no doubt in hopes of the treasure—the λογάρι, σίγκλα, σταυρός, μπαρντά, the golden sow with seven golden piglets, which someone will find in this region.¹

Where the common cemetery lay and what were the burial customs we do not know. The excavated tholoi must surely be the tombs of the nobles.²

Population.

Speculation as to the total of the population is naturally dangerous. The inhabited area, however, seems to be very much the same as that of the modern Krousonas in Malevyzi, and reckoning, *mutatis mutandis*, on that basis we cannot allow a total much short of 3500.

¹ Cf. the legend of Trapeza. *BSA* XXXVI p. 17. The quantity of Archaic pottery figurines of animals, etc., found round about Vitzelovrysis (see p. 100 below) seems to have lent some colour to the story.

² It is noteworthy that this is one of the few areas in Lasithi where pithos burials are not said to be found.

Methods of Building and Construction.

It may be of advantage here to note a few of the general principles of building and construction found in the city. Many useful comparisons may be made between the ancient and the modern methods, cf. Plates XVI–XXII with XXIII.

1. *Roads.* Except in the thickly populated part of the city, the roads are pure tracks, beginning, no doubt, as game-tracks and shepherds' paths, and gradually, with the rise of the city, becoming regularised. Only two cases of deliberate work have been noticed. The first is on the path leading up from the south, at a point just below Ta Mnemata 14 and 15, where the rock seems to have been split back to give a wider passage. The second is the steep path already mentioned which leads up the Khalasa to the saddle from the north.

The paved roads of the town are, however, carefully laid. They exactly resemble the '*kalderims*' or paved roads of modern Crete, attributed often to the Turks, but in fact going back much farther—some, indeed, almost certainly to Minoan days. Particularly noticeable are the widely spaced steps, to-day πασαμάκια, which ascend a slope (*e.g.*, in Broad Road, 111, 101, 103, 105, and in Temple Road East, 72), and the line of big stones set askew at the corner of 52 and projecting above the level of the road in order to break the force of the water after a heavy storm. This precaution, however, does not seem to have been effective, since we notice that it is the paved streets which have suffered most. For instance, in one part of Broad Road the walls of the houses on either side are well preserved, but every paving-stone has gone from the road. It seems, therefore, a justifiable assumption that shortly before the desertion of the city, a storm—even more severe than usual—swept away much of the paving, and that it was not worth while repairing the roads before leaving the city.

2. *Houses.* A great deal of information was obtained from comparison not only with the modern Tzermiadho, but also with the methods used in the construction of the hut built by ourselves on the saddle.

Foundations scarcely exist. At the most a shallow trench was scratched in such earth as covered the virgin rock. The material used was the hard local limestone. It was seldom dressed, if at all, since the blocks split off comparatively easily by levering. Large and small stones seem to be used almost

indiscriminately. A block weighing several hundredweight may rest on a course of very small stones indeed. Frequently the rock itself was split back and used as part of the wall (cf. 69, Plate XXI 2).¹ Door-jambs on the whole tend to be made of well-shaped blocks, and the thresholds, often raised, as in the modern town, in order to prevent water from coming in from the street, are of good stones. No mortar was used, though the presence of what seems to be lime plaster high up in the west wall of 80 is puzzling. Many of the walls were undoubtedly built dry, but if any bonding material was used, it was, as in our hut, mud. No trace of interior plastering was found. The floor seems often to have been left with the rough rock projecting through, although the better houses had evidently had a layer of the water-proof λεπίδα, δωματοχώμα or παράσπορα laid down for levelling. In outside courts there is evidence of the Minoan 'tarrazza' having survived. Once or twice stone slabs were used (e.g., 96, 138).

The columns which, in the larger rooms, must have existed to support the roof were of wood, whether shaped or not we cannot say. In two cases only (9 and 113) were square stone bases found. Most of the columns, no doubt, rested on the virgin rock which was so close below the floor. If columns were present, a large main beam must have run across them. Resting on this, or, where there was no column, on the side walls alone, were the rafters. In the first case (in 9) these were 1.25 metres apart. Where, however, there was no support they seem to have been at intervals of 60–70 cms.—the spacing used, incidentally, in our hut. Over these were laid rough planks (ντόλγιας). On the analogy of modern *mandras* and our hut, these would not be more than 0.80–1.50 metres long by about 0.30 metres wide. The inevitable interstices would have been stuffed with brush-wood (ἄστιβίδαις in our case) bound together with thick red mud. Over this was laid a layer of δωματοχώμα (apparently about 10 cms. deep). Above this came a ring of flat stone slabs projecting to form eaves (cf. 80 in particular and also many of the streets). Above these again was some 20–25 cms. of δωματοχώμα, well watered and stamped flat. This finishing touch may well have been added by some such method as is shown in Plate XXIII, 5. The chimney-stack was almost certainly a broken pithos. Fragments of such jars were found in quantities above the fallen roof. One had almost been fused by the heat (cf. also Pl. XXIII, 1).

¹ No traces of sun-dried bricks were found, though it is quite possible that such were used.

In a city where terracing is necessary, recourse must be had to all sorts of devices in order to obtain entry to some of the rooms. 69, for instance, was built right up against the rock. The only entrance is over the roof of 81, 82. Access to this roof in its turn could only be obtained from other roofs, and so by means of a step-ladder from the street. An exactly similar system is seen in the town to-day (Pl. XXIII, 2). Cellars like 12 and 13 must have been entered by means of a trap-door and a ladder. Many of the rooms, indeed, which are entered from their neighbours are at such a height above them that, again as to-day in the villages, wooden step-ladders must have been in demand. Steps of stone seem to have been kept entirely for external use, as in the streets and in the open passage 15, in the open court of the Temple, 1, outside the south-east corner of 23 and in the passage between 22 and 23, which may have been a light well.

No wall was preserved to a great enough height to show traces of a window. Many of the old-fashioned houses to-day have none.

In conclusion, the appearance of the city must have been very much that shown in Pl. XXIII, 1-4.

3. *Tombs.* Details of the construction of each of these will be given in the proper place (pp. 100 ff. below). It suffices here to say that they are built of the same hard local limestone as the houses, that the stones are on the whole larger and better split, and that it is almost certain that no bonding material whatsoever was used.

III. THE CITY AND SPRING.

(Plates IX, X, XIV-XXIV.)

In this section a detailed description of each room will be given, as well as a catalogue of the objects found in it. The numbers given to each object refer to the general catalogue of antiquities from the excavations in Lasithi. Missing numbers in the sequence are from other sites cleared during the three seasons. Only important pottery and variations from the usual proportion of types are mentioned specifically. Rooms generally contained coarse sherds from 3-6 pithoi, pithoid jars, jars, tripods, kalathoi and dishes, and from 1-2 large stirrup-jars, basins, lamps and lids, fine sherds from 4-6 bowls or cups and from 2-3 stirrup-jars, jugs, spouted-jars, pyxides, kraters and kylixes and one or two fragments of blue ware. In bulk coarse sherds averaged about ten times more than

fine, but this naturally depended more on the size than on the number of the vessels represented. There were also, as a rule, rough stone grinding-slabs, many stone-pounders, fragments of pumice and the remains of animal bones. The different classes of objects are treated separately in section V. The pottery will be discussed in a future article as soon as its study can be completed. The type numbers given below refer to the corpus of shapes which will then be published.

A. THE CITY.

1. *Mikre Koprana*, 147-150 (Plates IX, inset; XVI, 1).

This building covers most of the flat plateau on the summit. It is much-denuded, virgin rock being often within a few centimetres of the surface, and it is impossible to say how much has disappeared. The main entrance seems to be at the east end. To the right of it a semicircular vat, formed of a single row of upright stones, is built against the wall (Plate XVI, 1). This is paved with flat slabs, among which is a whetstone. At the south end, and surrounded by slabs, is the base of a pithos. This vat much resembles an example found in the east room of the Archaic building at Kolonna,¹ where we have reason to believe that it was used for dyeing. In this case, however, it is more probably a watering- or washing-trough. 147 presents no features of particular interest. It may have been divided across the middle into two, since markings on the rock floor seem to indicate lines of stone.

Another room had opened off the south-east corner, or rather 147 had been built on to a previously existing room. All that remains, however, is a flight of three steps leading down into it. 150 and the adjoining closet have no visible means of access, but we shall frequently come across cases where a step-ladder was needed to reach a hatch between two rooms. 149 presents no features of interest except a rough oblong tank in the rock floor, artificially enlarged. This resembles rock cut tanks in which, at remote mountain *mandras*, the milk is fermented. 148 was probably an outhouse.

Objects.

147. 683. Fragment of knobbed steatite lid, 4.7 cms. diameter.
 684, 685. Two conical spindle whorls of steatite, 2.4, 2.2 cms. diameter.
 686. Limestone disc, double piercing, 4.9 cms. diameter.
 687. Bronze knife with twisted handle, 14.2 cms. long (Plate XXVIII, 2).
 688, 689. Bronze angle pieces, 7.0, 5.8 cms. long.
 690. Bronze fibula, broken, 7.0 cms. long (Plate XXIX, 2).
 691, 692. Two conical clay spindle whorls, 2.7, 2.8 cms. diameter.

¹ Unpublished yet in detail. Cf. *JHS* LXVII p. 140; LXVIII p. 233.

693. Cylindrical clay spindle whorl, 2.5 cms. diameter.

694. Biconical clay spindle whorl, 2.3 cms. diameter.

695. Large clay spool, 8.0 cms. diameter.

Two other clay spools.

Pottery: Coarse ware as usual including fragments of at least 5 pithoi (one, type 15, intricately covered with 'herring-bone' moulding), 8 pithoid jars and 11 dishes.

Fine ware as usual. One hut-urn.

148 185. Bowl of grey steatite, 8.0 cms. diameter (Plate XXX, 1).

and 186. Clay palette, 5.6 by 4.3 cms. (Plate XXX, 3).

149. 187. Clay head of ox, 3.0 cms. high (Plate XXXII, 3).

188. Amulet (?) of limestone, 2.8 cms. long.

189. Conical spindle whorl of brown steatite, 2.4 cms. diameter.

190. Five cylindrical spindle whorls, four of clay and one of steatite, 2.8-2.1 cms. diameter.

191, 192, 193, 194. Four conical beads of steatite, 1.4, 1.2, 1.1, 1.6 cms. high.

195. Small slate whetstone, 6.1 cms. long (Plate XXX, 3).

196. Square amulet (?) of steatite, double piercing, possibly inscribed, 2.5 cms. long (Plate XXX, 4).

197. Fragment of bronze blade, 5.7 cms. long.

198, 199. Two conical beads of steatite, 1.2, 1.4 cms. high.

377. Knobbed lid of stone, 15.0 cms. diameter.

Kalathos with clay figure of goddess inside (Plate XXXV, 6).

Many clay spools.

Pottery: Coarse ware of all the usual types but a very large number of pithoi (at least 17), pithoid jars, tripods and dishes (at least 16, 12 of type 6). Fine as usual, including a large krater, type 1.

150. 696. Spindle whorl of steatite, 1.5 cms. diameter.

697. (from outside) Whetstone, 7.5 cms. long (Plate XXX, 3).

Many clay spools, 2 large square, 2 large round, 13 medium, 1 small.

Remains of pierced boar's tusk.

Pottery: As usual. One double-sided vessel, possibly a fire-box.

Slopes of Hill (bought).

122. Limestone cylinder, 2.4 cms. high.

200. Plate of bronze fibula, decorated, 6.2 cms. long (Plate XXIX, 2).

631, 632, 633. Three conical spindle whorls of steatite, 2.0, 1.8, 2.3 cms. diameter.

2. *The Eastern Quarter, 135-144 (Plates IX; XVI, 2, 3).*

The builders of these houses were clearly fortunate in finding a suitable site. There is no sign of any later additions, nor, except possibly in 143 and 144, was there any necessity of cutting back the rock.

The only problem connected with them is the method of approach. 135, 136 has a branch of the main road leading directly up to it. The rest, however, are confronted, as may be seen from the plan, by jagged rocks immediately outside the front doors.

All the houses (135-136, 141-137, 140-139-138) are of the megaron

type. 143 and 144 are clearly store-rooms of some sort, probably belonging to the last group.

138-140 is the most interesting house, and would not be a bad example of the simplest type of Homeric house (Plate XVI, 2). 140 is the πρόδομος. 139 is the megaron. To the right of the door is a small cupboard in the thickness of the wall. Against the east wall are placed two upright slabs, the space between them being roughly paved (Plate XVI, 3). It is certainly not a fireplace, but may be a jar-stand. In the centre of the room is the hearth, a burnt patch of earth and fragments of charcoal marking the spot. It is possible that the slightly lower levels of the east wall, immediately to the north of the jar-stand and in the north-east corner, imply some sort of hatches connecting with the store-chambers 143, 144. There is a steep step up at the end of the megaron which leads to the θάλαμος, 138. Here there were traces of stone paving, slabs being found in position over most of the east end.

The middle house, 141, 137, is much less well preserved. 141 may have been open to the sky, since very few traces of roofing were found in it. It may have been the αἶθουσα. In the megaron, 137, traces of a foundation occur which may mark the limits of a πρόδομος. That this was a separate division is practically proved by the fact that the hearth is in the centre of the northern half of 137. This hearth retained the larger part of a balk of wood, the charred remains of the final blaze.

142, which has no direct connection with any of the buildings, may well have been a small outhouse belonging to either 141, 137 or to 135, 136. We are hardly entitled to attribute it to the former on the grounds of its slightly thicker west wall.

135 might well be considered as the courtyard in front of 136, were it not for the amount of roofing material found in it. In any case, the roofing must have been of the lightest. The small amount of stone found in it probably implies that on the west side, which is rock, the roof was supported on poles. The hearth in 136 is again in the very centre of the room. There are no traces of columns or bases for them, although the breadth of the room is rather wider than the widest nowadays allowed to go without some central support.¹ There may be a square bench in the north-west corner.

Objects.

134. 678. Fragment of bone handle, 1.5 cms. long.
One spindle whorl cut from a kylix stem.
Pottery: As usual.

135. Pottery: As usual but very little fine ware.

¹ Four metres is regularly the greatest width to be spanned by old-fashioned methods.

136. 634. Fragment of base of steatite bowl, 4.3 cms. high.
 635. Cylindrical spindle whorl of steatite, 2.4 cms. diameter.
 636. Decorated plate of bronze fibula, 12.0 cms. long (Plate XXIX, 2).
 637. Fragment of light blue faience.
 21 clay spools.
 Pottery: As usual. One tankard spout.
137. 638. Octagonal leg of bronze tripod, 11.2 cms. long (Plate XXIX, 2).
 639. Conical spindle whorl of steatite, 1.4 cms. high.
 654. Fragment of bronze blade, 4.1 cms. long.
 655. Tetragonal whetstone, 12.4 cms. long.
 Pottery: As usual. Sherds from a jar in coarse ware with medallions and other moulding.
138. Pottery: As usual. At least 5 pithoi represented.
139. 642, 643. Two conical spindle whorls of steatite, 1.0, 1.3 cms. high.
 5 clay spools.
 Pottery: As usual.
140. 644. Fragment of head of clay figurine, 4.5 cms. high.
 Pottery: As usual except for the absence of pithos sherds.
141. 656. Pierced lid of schist, 6.2 cms. diameter.
 657. Conical spindle whorl of clay, 1.7 cms. high.
 Pottery: The usual types, much broken, but with a large proportion of fine sherds.
142. Pottery: As usual but much broken.
143. 658. Conical spindle whorl of steatite, 1.2 cms. high.
 659. Cylindrical spindle whorl of clay, 2.7 cms. diameter.
 660, 661, 662, 663, 664. Fragments of bone pins, 10.7, 5.6, 4.4, 7.5, 3.6 cms. long
 (Plate XXVIII, 4).
 680. Pierced disc of schist, 3.2 cms. diameter.
 681. Conical spindle whorl of steatite, 1.5 cms. high.
 682. Conical spindle whorl of clay, 1.8 cms. high.
 Pottery: As usual.
144. Pottery: As usual.

3. A. 'The Barracks,' 2-7, 134, 145 (Plates IX; XVI, 4-6).

Up the cliffs of the Khalasa comes winding a pathway which might be suitably described in the words of Lithgow as a 'desartuous passage.'

The last ten or fifteen metres are made easier by the addition of a few flat stones to form steps, and at the point at which it emerges on to the saddle, the rocks on either side seem to have been split back to widen the entrance (Plate XVI, 4). Since, from the day the city was deserted, the only visitors to the site have been shepherds, it is clear that this improvement of a natural approach must date from the period of occupation.

At the top of the path a low wall bounded a short passage, 145, which led to a kind of rock chamber, 134. In neither was found any object of importance.

On the other side was a small square building, 5, much denuded owing to its exposed position. The north wall has gone entirely, its position being marked by a depression in the ground. The entrance seems to have been from the south. This building was almost certainly the watch-tower or guard-house at the top of the path up which returning raiders would arrive and attackers from the hostile lowlands appear.

3 is a plain room, again too much denuded to retain any trace of the columns or posts which must have supported the roof, of which much of the debris survived. At the east end is a low bench of stone.

4 was open to the sky. At all events, it is too large to have been roofed, and no trace of roofing material survived. Its exact plan is uncertain. It appears to have consisted of a courtyard, backed by the rock, with a long plinth, or bench, at the north end. From it a road, perhaps originally paved, ascended to the saddle below Mikre Koprana. At the first corner is a banking wall to prevent the earth slipping from above. Beyond this a branch leads to the Eastern Quarter (see above, p. 70), and beyond this again the road serves the isolated building 146 (see below, p. 74).

2, again, is a simple room. At the east end, however, is a hatchway (Plate XVI, 5), an ὀρσοθύρη from which by means of a step-ladder the space at the back (to-day called a κελάρι—i.e., cellar) could be reached.

7, again, is a simple room with no distinguishing features.

6 is the same, except that against the south wall were two large, flat slabs which may have acted as a bench. There were good traces of roofing.

The term 'Barracks' (στρατώναις) was first applied to this group by the workmen. At that time, in view of the position of the buildings and their likeness to the bare rooms of the Police Barracks at Tell el-Amarna,¹ this title was possible, as well as convenient. In view of later discoveries, however, it seems more probable that they were among the first buildings to be set up, simple in plan, and on one of the few comparatively level spaces of ground to be found.

Objects.

2. 1 large and 2 medium clay spoons.
Pottery: As usual.
3. 206. Cylindrical spindle whorl of clay, 1.7 cms. high.
207. Bronze needle, 9.0 cms. long.
616. Circular bead of steatite, 1.3 cms. diameter.
Pottery: As usual.
4. 208. Remains of clay figurine, 4.6 cms. high.
Two clay spoons.
Pottery: As usual.

¹ Cf. the forthcoming *City of Akhenaten* III.

5. 263. Conical spindle whorl of yellow steatite, 1.2 cms. high.
Pottery: As usual.
6. 209. Fragment of rim and handle of grey steatite cup, 3.9 cms. high (Plate XXX, 1).
264. Conical spindle whorl of yellow steatite, 1.4 cms. high.
652. Cylindrical spindle whorl of clay, 1.7 cms. high.
One clay spool.
Pottery: As usual but a large proportion of fine ware.
7. 615. Pierced palette of schist, 6.8 cms. long (Plate XXX, 3).
Pottery: A small amount of the usual types. One large kylix, type 3.

3. B. *The Road House*, 146 (Plate IX).

This building was served by the road, above mentioned, leading from 4. In 1937, when it was first noticed, the north and west walls were still comparatively intact, and, fortunately, a measurement was taken. The interior had already been dug up to form a field. In 1938 the east wall, with its north and south corners, alone survived. Its size proclaims its importance, but, apart from noting that it was entered from one of the long sides, we cannot say more.

3. C. *The South-East Block*, 130-133 (Plate IX).

This block was discovered, on apparently barren ground, during the making of a path up from Vitzelovrysis suitable for pack-animals. At first it appeared that some stratification would be found. Unfortunately the stones which seemed to rest so securely in a regular order above the black layer turned out to be a chance fall of wall above the roofing, and the final result showed simple rooms of the usual type.

A roughly paved path seems to lead up to 133 along the south wall of 132. 132 itself is reached from the former by means of two steps down. Both rooms have traces of stone benches along the north side.

130-131, however, is entered in the ordinary way from the main path. Apart from a small stone bench in the south-east corner of the former, which seems to have been renewed later, neither room presents any peculiarity. The building corresponds most closely to 2 (see above), with the hatch leading from one division to the other.

Objects.

130. Spindle whorl cut from a kylix stem.
Pottery: As usual but very few pithos sherds.
131. 618. Conical spindle whorl of steatite, 1.2 cms. high.
Pottery: Usual types of coarse ware. One strainer top. More fine vases represented than in general including a large krater, type 10, decorated with animals in dark paint.

132. 621. Circular lid of steatite, 6.0 cms. diameter (Plate XXX, 4).
 622. Conical spindle whorl of steatite, 1.0 cms. high.
 623. Whetstone, 4.5 cms. long.
 Pottery: As usual. One dish with handles, type 9, is unparalleled.
133. 619. Conical spindle whorl of steatite, 1.5 cms. high.
 620. Lentoid seal stone of red jasper with design of a lion, 1.8 cms. diameter (fig. 3, p. 132).
 Pottery: As usual.

4. A. *The Temple*, 1 (Plates IX; XVII, 1-4).

The Temple was the first building on the site to be excavated. Since it was our first experience of the complications of fallen and roughly built stonework, it is not surprising that, in our caution, we should have left a great number of blocks *in situ* which, in the succeeding seasons, we were able to remove. Previous accounts of this building must therefore be disregarded.

Against the east wall a large flat stone serves as a step up to the heavy threshold. The first compartment is a large court, apparently open to the sky, since no trace of roofing material was found. The floor is very uneven, though some effort at levelling seems to have been made with red clay.¹ Whether this court ever had a north wall is uncertain. The whole of the north end of the building is much denuded, and it is not impossible that parts have fallen down the cliff. Almost on the edge is a low square altar (Plate XVII, 3). This, since being excavated, has been grubbed up by the peasants in search of treasure.²

At the south end there is a broad ledge (Plate XVII, 1), on which the cult statues clearly stood. This ledge was formed of a thick front wall, the space between it and the main south wall of the building being filled with stones. At the east end the front wall runs right through, and forms a good outside corner with the outer east wall, almost as if it originally formed the south wall of the whole building. This, however, is probably due to chance.

Along the west wall of the court ran a shelf of stones about 80 cms. above the level of the floor. In the south-west corner a flight of steps leads up to further rooms (Plate XVII, 2), in the northernmost of which the goddess No. 1 (Plate XXXI) was found. The walls here are so denuded that it is impossible to determine the position of the doors. Finally, in the south-west corner is a small square compartment in which most of the vases of blue ware were found (Plates XVII, 4; XXIV, 5).

Objects.

1. 109. Button-shaped seal of steatite with rosette pattern, 1.4 cms. diameter (Fig. 2, p. 131).
 110. Disc-shaped spindle whorl of striated limestone, 4.8 cms. diameter (Plate XXX, 4).

¹ Cf. *Vrokastro* p. 87.

² Cf. stone column bases at Tell el-Amarna.

- 111, 112, 113, 114. Limestone pounders.
- 115. Globular clay bead, 1.3 cms. diameter.
- 201. Conical spindle whorl of brown steatite, 2.1 cms. high.
- 202. Cylindrical spindle whorl of clay, 1.6 cms. high.
- 203, 204. Cowrie shells.
- 205. Fragment of obsidian, 2.0 cms. long.
- 274. Conical spindle whorl of steatite, 1.2 cms. high.
- 369. Triton shell.
- 617. Conical spindle whorl of steatite, 1.5 cms. high.
- Clay statue of goddess 1 (Plate XXXI).
- Clay statue of goddess 2 (Plate XXXI).
- Clay plaque with face in relief (Plate XXXV, 1).

Pottery: In general as usual, both in coarse and fine wares, although a three-handled jar, type 2, and a kalathos with knobs opposite the handle, type 4, are unparalleled and a group of vases, some of them distorted, in blue ware is exceptional (Plate XXIV, 5).

4. B. *The Dependencies of the Temple*, 19, 20, 38-41 (Plate IX).

The west end of 40 has probably collapsed over the edge of the cliff, which is very steep at this point. 41 is an open court; a line of stones running across it divides it into two, the northern half being some 40 cms. the higher. It was an area of some importance, since Temple Road East leads directly to it. 19 and 20, again, seem to have been open to the sky. 38 and 39, however, were certainly roofed. They can only have been entered from above by means of ladders.

Objects.

- 19. Pottery: As usual.
- 20. Pottery: As usual.
- 38. 306. Bronze hook, 7.1 cms. long (Plate XXIX, 2).
- 307, 308. Two bronze rings, 1.6, 1.5 cms. diameter (Plate XXIX, 2).
- 309. Fragment of obsidian.
- 310. Cylindrical spindle whorl of clay, 2.1 cms. high.
- 311. Shell.
- Pottery: In general as usual but no pithos sherds noted.
- 39. 271. Conical spindle whorl of clay, 2.5 cms. high.
- 272, 273. Pierced discs of schist, 5.8, 3.2 cms. diameter (Plate XXX, 4).
- 312. Bone handle for knife or stick, 6.0 cms. long.
- Pottery: A larger proportion of fine ware, much broken, than usual.
- 40. 256. Haematite weight, 3.2 cms. high (Plate XXX, 1).
- 257, 259. Two conical spindle whorls of clay, 1.7, 1.9 cms. high.
- 258. Bronze shoemaker's awl with tang, 9.0 cms. long (Plate XXIX, 1).
- 260. Pierced plaque of mother o'pearl, 3.0 cms. long (Plate XXX, 4).
- Pottery: As usual.
- 41. 261. Fragment of limestone weight, 2.9 cms. long.
- 262. Pear-shaped bone bead, 1.4 cms. long.
- 321. Shell.
- Pottery: As usual.

5. *The Great House*, 8, 9, 11-18 (Plates IX; XVII, 5, 6; XVIII, 1-4).

This building occupies the most sheltered position on the site. In size it is the largest building of the period yet found and in arrangement the most elaborate (Plate XVII, 5, 6). It must undoubtedly have belonged to the ruler of the city.

Its original plan was very simple, consisting merely of the large square room 9. It thus resembled the buildings described above, the 'Barracks'. Later the other rooms were added, the west wall being cut through. The additions are not bonded in, indeed gaps occur, though these have been exaggerated in the plan for the sake of clarity (*i.e.*, the S.W. and S.E. corners of 14, cf. Plate XVIII, 3).

In its final form (Plate XVIII, 1) it consisted of a πρόδομος 8, with very fine jambs. Behind this lies the megaron, 9, its door framed with good blocks and a raised threshold, relic of the days when this was the front door and there was danger of water coming in from outside. The square stone base of a column was preserved at the west end. A corresponding depression in the floor of δωματοχώμα showed the position of the eastern column. No trace remained of the main beam which must have run across these columns. The cross-rafter, however, were well preserved, though carbonised by the action of the soil. They had a section of about 15 cms. square, and were spaced about 1.25 metres apart. This wide spacing was no doubt due to the fact that the central beam took much of the weight. Above the rafters were the carbonised remains of planks and brushwood, which, as to-day, had thick red mud rammed into the interstices. On top of everything was a heavy layer, some 20-30 cms. thick, of waterproof λεπίδα.

In the north-west corner of the room was a stone jar-stand, called a 'σταμνοτάκι', in which a round-bottomed jar could be placed (Plate XVIII, 2). A gap in the wall of this allowed the neck to be tilted right over. Beside this stand was a raised hatch, or ὀρθοθύρη, whence by means of a step-ladder the store-room, 14, could be reached.

The west wall of 9 had, as said above, been cut through, the new jambs being carefully built. Behind this new room, 11, lay two cellars, 12 and 13, which can only have been reached by a trap-door through the roof (Plate XVIII, 4). Along the north wall of both rooms and the east wall of 12 ran a low stone bench. The north-west corner of 13 was completely taken up by an outcrop of rock. Both these rooms were built over an earlier rubbish-tip.

Along the north side of the house an open, stepped passage, 15, led to the big open court, 16 and 17. It is uncertain whether the stones built up against the west wall of this mark a division down the middle or were merely part of a buttress.

The small yard 18 was also unroofed. Like so many yards in the

villages to-day, it had no entrance through its low walls. The animals step over them.

Objects.

8. Pottery: As usual. Pyxis with panelled design, type 1.
9. 275. Clay statuette, legs broken, 6.0 cms. high (Plate XXXII, 4).
 276. Cylindrical spindle whorl of clay, 1.5 cms. high.
 365, 366. Oyster shells.
 367. Fragments of bronze ring.
 Pottery: As usual. Many pithos sherds.
11. 211. Fragment of yellow sandstone with carved ridge, 3.5 cms. long.
 212. Biconical spindle whorl of clay, 2.0 cms. high.
 277. Cylindrical spindle whorl of clay, 2.3 cms. high.
 372. Lead ferrule, 2.3 cms. long.
 Pottery: As usual.
12. 213. Bronze sickle, 20.9 cms. long (Plate XXVIII, 2).
 214. Bronze dagger, 14.1 cms. long (Plate XXVIII, 2).
 215. Bronze saw, 8.8 cms. long.
 216. Bronze chisel, 6.0 cms. long (Plate XXVIII, 2).
 217. Bronze nail, 3.6 cms. long.
 218. Bronze needle, 6.7 cms. long.
 219. Fragment of decorated bronze, 1.5 cms. long.
 220. Two fragments of bronze.
 221. Two fragments of lead.
 222. Part of bronze ring.
 244. Cylindrical spindle whorl of clay, 1.6 cms. high.
 245. Globular glass bead, 1.8 cms. diameter.
 246. Biconical bead of faience, 1.7 cms. diameter.
 Pottery: As usual.
 (*Below floor.*) Pottery: The usual types represented but with a large proportion of fine sherds.
13. Pottery: As usual.
14. 223. Point of steatite implement, 2.4 cms. long.
 224. Fragments of wood.
 Pottery: Mostly coarse ware of the usual types. Fine includes a pyxis, type 2, with red painted horns of consecration, etc. (Plate XXIV, 6).
15. 225. Clay loom weight, 6.0 cms. high.
 226. Two boar's tusks, 5.9 cms. long.
 247. Bull's horn, 39.0 cms. long.
 Pottery: As usual.
16. 227. Fragments of conch shell.
 228. Clay figurine, 9.2 cms. high (Plate XXXII, 4).
 Fragments of clay figurines of goddesses and other cult objects.
 Clay spool.
 Pottery: As usual. Sherds from at least 4 pithoi.
17. 229. Boar's tusk, pierced in two places, 10.6 cms. long.
 230. Fragment of bronze blade, 8.5 cms. long.
 231. Fragment of green steatite spindle whorl.

232. Bronze sickle, 14.3 cms. long (Plate XXVIII, 2).
 233. Horn of clay figurine, 4.1 cms. long.
 234, 235. Two cylindrical spindle whorls of clay, 1.0, 1.6 cms. high.
 236. Bronze awl, 8.5 cms. long (Plate XXIX, 1).
 237. Fragment of bronze saw, 2.4 cms. long.
 238. Bronze nail, 1.4 cms. long.
 368. Worked piece of steatite, 3.9 cms. high.
 Tubular cult object.

Pottery : As usual.

(*Below floor.*) Pottery : Fragments of all the usual types.

18. 679. Bronze ring, 1.7 cms. diameter (Plate XXIX, 2).
 Pottery : As usual. Sherds from at least 4 pithoi.

General.

349. Flat fragment of bone.

The Square and Broad Road between Quarters 5 and 6, 10, 32 (Plates IX; XVIII, 5).

Of the square, 10, no paving remains. It is quite possible that it had none, since virgin rock is very near the surface. 32 (Plate XVIII, 5) ascends very sharply. Indeed, were there not an equally steep ascent in Tzermiadho to-day, one would have doubted whether it was possible for animals.

Objects.

10. 210. Conical spindle whorl of steatite, 0.9 cms. high.
 Pottery : As usual but all sherds small and worn.
32. 508. Bronze knife, 7.3 cms. long (Plate XXVIII, 2).
 509. Fragments of bronze vase.
 510. Bronze blade with long tang, 8.6 cms. long (Plate XXVIII, 2).
 511. Bronze rod in three pieces, 5.9 cms. long.
 Pottery : As usual but all sherds small and worn.

6. *The Magazines*, 21-23, 29-31, 33-37 (Plates IX; XVIII, 6; XIX, 1, 2).

This group is built up against the steep wall of rock which the street, 32, above described, ascends. 34 has two entrances, one into the square, 10, and the other into the street to the east, 35. Its only feature is a very good threshold. 33, also, is a simple room. 31 may have been divided into two unequal halves by a partition, very roughly built, running from the south wall. It is possible, however, that this was merely a chance fall of stone.

To which room 36 and 37 belong is uncertain. As shown in the plan, they have been cut short when the modern field to the east was made. Similarly the steps leading down outside the south-east corner of 23 belonged to some building farther east (Plate XIX, 1).

23 is the most important room of the block (Plate XIX, 2). At some period it had been destroyed by fire and the regular traces of roofing were duplicated, the lower level showing much evidence of burning and the walls being blackened by smoke to a height of some 1·25 metres.¹ When the first roof fell in, it was evidently trampled down to make a floor, and slabs were laid on it along the north side. It is possible that there was a small *σταμνοτάκι* in the north-west corner and by it a window into 31. At the west end of the room there is a steep step up. From the landing thus reached other steps, possibly open to the sky, lead up north and south, the former to a window, the latter to the compartments 29 and 30, built up against the rock and separated only by a buttress which runs behind the whole of the block. 22 also showed many traces of burning. A fragment of baked *δωματοχώμα* here showed the marks of a joist 5 cms. in section. 21 again disappears beneath a field.

Objects.

21. Pottery: As usual.
22. 239, 240. Two cylindrical spindle whorls of clay, 1·2, 1·0 cms. high.
5 clay spools.
Pottery: A much larger quantity for the size of the room than usual. At least 8 pithoi represented and all the other common coarse types except open dishes of which none were noted. Little fine ware but including 3 comparatively whole pyxides, one, type 3, with a 'windmill' design.
23. 278. Fragment of bronze bowl.
279, 280, 283. Three conical spindle whorls of clay, 2·1, 1·5, 1·7 cms. high.
281, 282, 287, 291. Four cylindrical spindle whorls of clay, 1·2, 1·7, 1·9, 1·0 cms. high.
284, 285, 286. Three Neolithic stone axes, short type, 4·6, 4·2, 4·2 cms. long (Plate XXX, 2).
289. Bone pommel, pierced, 3·7 cms. diameter.
290. Shell.
2 large and 7 medium clay spools.
Pottery: As usual, but little fine ware. Krater type 4.
(*Lower floor level.*)
293. Cylindrical spindle whorl of clay, 1·2 cms. high.
Pottery: Sherds of the usual types but much broken and blackened by fire.
29. 265. Bronze curved disc or cap, 1·5 cms. diameter (Plate XXIX, 1).
266. Fragment of bone implement, 6·0 cms. long.
267. Fragment of curved bronze knife or sickle, 6·5 cms. long.
268. Bronze ring, 2·2 cms. diameter (Plate XXIX, 2).
269. Conical lump of worked steatite, 3·1 cms. high.
270. Cylindrical spindle whorl of clay, 1·2 cms. high.
292. Neolithic stone axe, short type, 4·7 cms. long (Plate XXX, 2).
Pottery: As usual. One larnax fragment.

¹ If it were not for the fact that the two layers were distinguished by the traces of burning in the lower, it might have been argued that there is evidence here for two stories.

30. 294. Cylindrical spindle whorl of clay, 1.0 cms. high.
 295. Fragment of bronze.
 Pottery: As usual. One very fine krater, type 3, with a scale pattern.
31. 296. Cylindrical spindle whorl of clay, 1.1 cms. high.
 297. Neolithic stone axe, short type, 4.5 cms. long (Plate XXX, 2).
 298. Fragment of bronze knife, 4.0 cms. long.
 299. Fragment of steatite bowl.
 300. Boar's tusk, pierced and sharpened, 8.5 cms. long.
 Horn of red deer.
 Pottery: As usual, but no pyxides noted. One small sherd of exceptionally good fabric may be an import.
33. 301, 302. Two cylindrical spindle whorls of clay, 1.9, 1.4 cms. high.
 Horn of red deer.
 Pottery: As usual, but little fine ware. Hut-urn with lugs at either side of door.
34. 303. Conical spindle whorl of steatite, 1.4 cms. high.
 304. Pierced disc of sandstone (?), 2.2 cms. diameter (Plate XXX, 4).
 Pottery: As usual. Three kraters represented.
35. Pottery: As usual, but sherds small and worn.
36. 305. Bronze needle with eye, 4.2 cms. long.
 320. Cylindrical spindle whorl of clay, 1.4 cms. high.
 Pottery: As usual. Many sherds from one large pithos.
37. Pottery: As usual.

7. *The Southern Houses*, 24-8, 42-51 (Plates IX; XIX, 3, 4).

This block shows two distinct periods. Of the first period are the rooms 43, 46, 47, the open space 42 and the curving street 45, 50, 51. Somewhat later 44 was added at an angle (Plate XIX, 4), and with it no doubt the southern group of rooms, 24-28. The public square 48 was laid out, the room 49 was built on, blocking the old road 45, 50, 51, which was further divided into three, as is shown on the plan. The southern rooms, 24-28, were probably reached by the narrow path between 44 and 22. The lower walls are so much denuded here that the position of doors cannot be determined with certainty. In 27 a large sloping rock occupied part of the north side. It was here that the cult objects described below were found. A thin slab of marble about 25 by 30 cms. may have been used for facing purposes. It is possible that this room was hypaethral. Very few traces of roofing were found, and the floor was of the red clay which was used in the open court of the Temple.

The earliest group of rooms showed no unusual features other than the alterations already described.

44 and 49 are evidently some more public structures fronting on to the square 48. They remind one very much of modern *καφενεία* beside the village square.

Objects.

24. 241. Shell.

242, 243. Two cylindrical spindle whorls of clay, 1.0, 1.4 cms. high.

288. Neolithic stone axe, long type, 6.0 cms. long (Plate XXX, 2).

3 clay spoons.

Pottery: As usual, but much broken. About 6 dishes of type 6 represented. The rim of one pithos is almost fused into glass by fire.

25. Pottery: Very little.

26. 248. Votive double axe of bronze, 10.8 cms. across (Plate XXIX, 1).

249. Fragment of thin bronze disc, 3.2 cms. long.

250. Bronze dagger hilt, 8.5 cms. long (Plate XXIX, 1).

251. Bronze awl with bone handle, 8.5 cms. long (Plate XXIX, 1).

252. Fragment of bronze disc decorated with bosses, 2.8 cms. long.

253. Fragments of thin bronze.

254. Shaped fragment of black steatite not unlike inlay, 4.4 cms. long (Plate XXX, 3).

255. Flattened clay cylinder, burnished, 1.6 cms. high (Plate XXX, 4).

2 clay spoons.

Pottery: Much coarse ware, including sherds from about 10 pithoi and pithoid jars and many kalathoi. One very fine tankard, type 1, with 'windmill' design.

27. 256. Cylindrical spindle whorl of clay, 1.2 cms. high.

Pottery rhyton with spout in the shape of a human head (Plate XXXV, 2, 3).

Pottery ring vase with three spouts in the shape of ox heads (Plate XXXV, 4, 5).

20 clay spoons.

Pottery: As usual. Two long, curved lamp-handles, type 1. Fine sherds mostly blackened by fire.

28. Pottery: Coarse ware includes at least 7 kalathoi. In fine, there is the side of a krater with scroll design.

General.

351. Cylindrical spindle whorl of clay, 1.9 cms. high.

42. Pottery: As usual.

43. 347. Fragment of a large conch shell.

Pottery: As usual. One pyxis of type 4.

44. 313, 314, 315, 316, 317. Cylindrical spindle whorls of clay.

318, 319. Two conical spindle whorls of steatite, 1.3, 1.5 cms. high.

339. Sandstone pounder, 8.5 cms. high.

One large and five medium clay spoons.

Pottery: As usual.

45. 350. Cylindrical spindle whorl of clay, 1.5 cms. high.

373. Conical spindle whorl of steatite, 2.0 cms. high.

Pottery: As usual. Sherds from a strainer.

46. 322. Cylindrical spindle whorl of clay, 2.2 cms. high.

323. Conical spindle whorl of clay, 1.3 cms. high.

Two large and five medium clay spoons.

Pottery: As usual, but few pithos sherds.

47. 324, 325, 326, 327. Cylindrical spindle whorls of clay.
 328. Fragment of shell.
 Part of pottery water-channel.
 Pottery: As usual.
48. 329, 330, 331, 332, 333, 334, 338. Cylindrical spindle whorls of clay.
 335. Conical spindle whorl of steatite, 1.3 cms. high.
 336, 337. Shells.
 346. Biconical spindle whorl of clay, 3.1 cms. diameter.
 354. Schist plaque, pierced, 11.0 cms. long (Plate XXX, 3).
 Pottery: As usual. Many pithos sherds.
49. 340, 341, 342. Cylindrical spindle whorls of clay.
 343. Conical spindle whorl of steatite, 1.2 cms. high.
 344. Pierced disc of steatite, 5.0 cms. long (Plate XXX, 4).
 345. Two fragments of bronze.
 Pottery: As usual.
50. 348. Biconical spindle whorl of clay, 2.2 cms. high.
 356. Cylindrical spindle whorl of clay, 1.8 cms. high.
 Clay spool.
 Pottery: As usual, but much broken.

Broad Road North of Quarter 7, 52-54 (Plates IX; XIX, 5).

The road has only a slight gradient. Traces of paving were rarely found. Between 53 and 54, on the corner, was a diagonal row of large blocks to break the force of water which might come down after rain (Plate XIX, 5). Beyond this, to the south, a few blocks are preserved close to the wall of 59. It is possible that these, since they are so regularly preserved, are the foundations of some earlier building. In view, however, of the fact that they would be the most protected from a flood which might tear up the rest of the road (see p. 66), they may well be part of the paving. It must also be remembered that rough plinths outside houses are common to-day (Plate XXIII, 3, 4).

Objects.

52. 352. Point of bone implement, 5.3 cms. long.
 353, 520. Two cylindrical spindle whorls of clay, 0.9, 1.6 cms. high.
 Pottery: As usual, but much broken.
53. 355. Conical spindle whorl of clay, 2.5 cms. high.
 Pottery: As usual but much broken.
54. 357. Cylindrical spindle whorl of clay, 2.2 cms. high.
 358. Fragment of upper part of bronze knife, 2.5 cms. across.
 359. Conical spindle whorl of steatite, 0.8 cms. high.
 599. Square fragment of steatite, pierced, 3.0 cms. square.
 Pottery: As usual, but much broken.

8. *The Small Shrine*, 55, 57 (Plates IX; XIX, 6).

57 is entered at the top of 32. There is possibly another entrance to the south. Along the outside of the south wall runs a narrow plinth (see above). From the south-west corner of the room a rock projects. The whole floor consists of rock, and there was no trace of roofing (Plate XIX, 6). 55 is on a higher level, and steps must have led up to it. There is a kind of buttress in the south-east corner.

Objects.

55. 360. Schist plaque, pierced, 6.3 cms. long (Plate XXX, 3).
 374. Cylindrical spindle whorl of clay, 1.4 cms. high.
 411. Bronze chisel or cutter, 4.0 cms. long (Plate XXVIII, 2).
 Pottery: As usual. Neck of jug with projection below the spout, one-handed jugs type 9.
57. 362, 363. Two cylindrical spindle whorls of clay, 2.3, 2.0 cms. high.
 364. Biconical spindle whorl of clay, 1.5 cms. high.
 Clay altar in the form of a shrine (Plate XXXIV).
 Pottery: As usual, but rather little fine ware.
 Another jug neck, type 9, similar to that from 55 above.

Broad Road between Quarters 8 and 9, 56 (Plate IX).

This part of the road has no features except the survival of part of the paving.

Objects.

56. 361. Cylindrical spindle whorl of clay, 1.5 cms. high.
 412. Conical spindle whorl of steatite, 1.6 cms. high.
 413. Fragment of bronze.
 Pottery: Sherds from all the usual types, with the exception of pithoi.

9. *The Priest's House*, 58-61, 80 (Plates IX; XXI, 4).

This building is second only, in size and complexity, to the Great House. The somewhat arbitrary title has been applied to it for two reasons. Firstly, as we shall see, it had direct access to the Temple. Secondly, it has, though not directly accessible, the room 58 as part of the structure.

The entrance to the main room, 61, is, in the Minoan fashion, on the long side. There is a high threshold to prevent the ingress of water from the street. Excellent remains of the roof were found. The floor was of good δωματόχωμα, spread thinly over the virgin rock. The interstices of this were filled with carbonised wood—a relic, perhaps, of earlier shelters (see p. 135). Along the west wall is a low bench of flat slabs laid apparently on the debris of these shelters. As far as can be seen, however, the room originally ran farther west, as far as the earlier walls visible below 83, 84 (p. 90). Broad as it is even now, there are no traces of column bases.

Perhaps this is due to the fact that, virgin rock being so near the surface, a good solid base existed for the wooden posts. The number of pithos fragments here found above the level of the ceiling implies that they were used not only for chimneys, but also, perhaps, for catching water (p. 63). It is of interest to note that no building stone was found below this level. The ceiling clearly fell in first before the walls collapsed.

60 and 59 need no special comment. They were entered on the same level as the main room.

80, however, needed a step-ladder. This room was interesting as providing an exact parallel to the modern practice of placing flat slabs to project from the roof as eaves. Several such were found lying above the level of the ceiling. Since the room had no outside walls, it seems as if it must have run up higher than its neighbours and received its lighting either by clerestory windows or from such light as filtered through the door of 61. Along the west wall, 1.45 metres above the floor, was a ledge, and the wall behind contained many traces of lime plaster (p. 67). The remains of pithoi were even more numerous than in 61 (Plate XXI, 4).

58 is, as has been said, part of the main building. Its only entrance, however, is from the street, 52. As in most of the shrines, there is a projecting rock, this time in the north-west corner. The cult objects were found in the south-east corner.

Objects.

58. 414. Conical spindle whorl of clay, 2.1 cms. high.
 415. Cylindrical spindle whorl of clay, 1.5 cms. high.
 416. Fragment of bronze.
 Pottery tube with handles (Plate XXXV, 7).
 Square pottery tube with handles (Plate XXXV, 7).
 Pottery: Coarse sherds from many pithoi, at least 8 kalathoi, mostly of type 1, and all the other usual types. Usual fine ware, but all found below the level of the coarse and of the cult objects.
59. 417. Fragment of bronze.
 Pottery: As usual, but much broken and scattered.
60. Pottery: As usual.
61. 427, 428, 513. Three fragments of bronze.
 429, 430. Two conical spindle whorls of clay, 2.0 cms. high.
 431. Conical spindle whorl of steatite, 1.8 cms. high.
 Horns of red deer, ox and goat and boar's tusk.
 Pottery: As usual but no pyxides noted.
 (*Below floor.*)
 432. Cylindrical spindle whorl of clay, 1.1 cms. high.
 Piece of yellow colouring material.
 19 clay spools.
 Pottery: Sherds of the usual types, much broken.

80. 458. Stone object, 4.5 cms. long (Plate XXX, 4).
 459. Crescent-shaped stone object resembling inlay, 5.9 cms. long (Plate XXX, 3).
 460, 461, 462. Three conical spindle whorls of steatite, 1.3, 1.4, 1.0 cms. high.
 Pottery: Coarse sherds from at least 8 pithoi, one tripod pithos, 7 or more kalathoi and several dishes of type 6. Fine ware, mostly found below the level of the coarse, includes at least 3 pyxides of type 1 and 1 of type 7, three stirrup-jars (1 of type 1 and 2 of type 2) and many bowls.

Temple Road East between Quarters 5 and 10, 70, 72 (Plates IX; XX, 1).

This road branches up to the right from the top of 32 (p. 179). It retains its paving in many places. Originally, as can be seen from the plan, it took a sharp turn left opposite the north-west corner of 13 before continuing northwards. This was presumably in order to avoid the deep depression at the back of 16 and 17, into which much of the town rubbish seems to have been thrown. The banking of it is still to be seen under the floor of 71 (Plate XX, 1), and the retaining wall is still visible below 70. Thence it continued in a series of widely spaced steps, 72, up to the open court south of the Temple, 41. At a later date, however, the construction of Quarter 10 (the Baker's House, etc., 71, 73, 74, see immediately below) and the continuation westwards of the north and south walls of 16 and 17 to form the present 70 caused the route to be switched round to the north side of this new block (76, see p. 87).

Objects.

70. 426. Part of cylindrical steatite pestle, 3.6 cms. high (Plate XXX, 1).
 600. Bowl of black steatite, 4.7 cms. high (Plate XXX, 1).
 Arms, hand, part of skirt of clay figurine of a goddess.
 Part of clay plaque.
 Part of ridged, tubular vessel.
 Pottery: As usual, but little fine ware.
72. 450. Curved bronze blade, 12.6 cms. long (Plate XXVIII, 2).
 Fragment of clay figurine of a goddess.
 Pottery: As usual, but little fine ware.

10. *The Baker's House, 71, 73, 74 (Plates IX; XX, 2).*

This small group, which may also include the newly-walled-in 70, was a later addition (see immediately above). 71 and 74 were originally one room, probably entered at the south end of the east wall, where a thinning and lowering of the remaining wall may indicate a threshold. After a fall of the roof, a partition wall was built on top of the debris, which also served to support the north wall, which seems to have been damaged—a fact which has made it impossible to determine the connection between these rooms and 73. The floor of 73 has for some reason completely disappeared. No trace of it was found at a height of about 52 cms. above the virgin soil, to which depth the walls run.

At the north end is a bread-oven, the first ever found in Crete (Plate XX, 2). It consists of a vault, the lower part built of small stones lined with burnt clay, the upper part of reeds bound together by the same clay, fragments of which were found retaining their impressions. At the top there seems to have been a projecting clay knob. The whole stood about 1.50 metres high. In type it exactly resembles the modern ovens at Mallais, the Homeric Malla, to the south-east of the Lasithi mountains. From a study of the north end of the west wall it would appear that the oven occupies the original position of the entrance which may have been shifted farther south.

Objects.

71. Pottery: The usual types represented but comparatively few tripod legs and little fine ware.
73. 451. Hollow bone tube, pierced across at both ends, 7.0 cms. long (Plate XXVIII, 4). Pottery: As usual, including many dishes, type 6, two being found inside the oven.
74. Pottery: As usual, but little fine ware.

Temple Road West, 76 (Plates IX; XX, 3, 4).

This area is extremely confused. It seems to be clear that, until Temple Road East was blocked by the construction of 70, 76 was a separate entity, approached only from 72, and possibly by means of steps down from the north end of 56. It seems always to have been open to the sky. To this period belong the two orthostats built up against the south end of the west wall (Plate XX, 3). These are the best stones on the whole site and have been carefully dressed, probably by means of stone pounders. They measure between 40 and 45 cms. across. Both are broken at a height of about 50 cms. The remaining fragment, however, of the northern one was found close by, and showed that the original height had been 1.25 metres. It was finished off in a slight curve at the top. What they were it is hard to say. They were not door-jambs, since the wall behind them, built on high, rough, virgin rock, runs right through. It is possible that there was a table between them and that they framed a small shrine. No traces of cult-objects were found, however. To the north of them is a ledge. On the opposite side a curved wall projects (Plate XX, 4). This resembles not only the manure tips of Tell el-Amarna,¹ but also the modern ones in many villages.

At the extreme south end there are the remains of a paved floor, 80 cms. above the earlier, and thus on a level with 56. This no doubt shows the stage when 76 was converted into a road. No other traces of paving were found, but it is significant that the orthostats, allowing for

¹ *JEA* XIX p. 3.

the rise in the lower floor, were broken off at very much this level, while at the extreme north end much carbonised wood, probably from the oven in 73, was found at a level which would correspond. 76, in fact, became a passage connecting 56 with 72. It would have been at a high enough level to give access to 73 over the wall south of the oven at its present height.

Objects.

76. 455. Decorated bronze tool, 15.1 cms. long (Plate XXIX, 2).
 456. Bronze tweezers, 6.5 cms. long (Plate XXIX, 1).
 490. End of bone pin, 6.6 cms. long (Plate XXVIII, 4).
 491, 492. Two fragments of bronze.
 493. Cylindrical spindle whorl of clay, 1.0 cms. high.
 Part of clay plaque.

Pottery: In coarse ware all the usual types represented but few pithos sherds and many vertical handles from large jars. In fine ware no pyxides or tankards noted. Sherds from a very fine krater decorated with birds in red paint, also one sherd from a bowl with a unique design of a 'face.'

11. *The Commercial Quarter*, 77-9, 89, 112, 116 (Plates IX; XX, 5).

This block seems to consist of a single unit. Both 79 and 89 contained meagre traces only of roofing, and that confined to the sides, where it may have fallen from other buildings. Both areas are at levels varying from 60 cms. on the south side of 79 to 85 cms. along the west side of 89 below the road. Both areas have traces of '*tarrazza*' paving, which in Minoan times invariably denotes that there was no roof. 89 is about 55 cms. higher than 79, and must have been reached by means of a step-ladder. In the south-west corner is an oven (Plate XX, 5). This was completely built of stone. As a result it was lower by 20 cms. than that in 73. No trace of clay lining was found.

112 is entered from 79. Hence there is a step down in the floor to 78. 77, which lies behind, has again two levels. There is a rock ledge in the north-west corner and a fireplace, or, since no trace of burning was found, a jar-stand, against the north wall.

From 89 a door leads into 116, a small, square room with the rocky floor rising almost to a ledge along the north side. In this room were found clay figures of goddesses.

The whole complex is not unlike a shop in an Upper Egyptian village, where everything from bread to a religious text may be bought.

Objects.

77. 457, 534. Two conical spindle whorls of steatite, 1.2, 1.7 cms. high.
 494. Bone pin, 13.0 cms. long (Plate XXVIII, 4).
 495. Part of rectangular bronze rod, 6.9 cms. long.
 Pottery: As usual. Many sherds from pithoid jars and some from the krater with bird decoration, which was mainly found in 76.

78. 499. Bronze, stylus-shaped rod, 7·8 cms. long.
Pottery: As usual, but much broken. Sherds from 4 kraters, including some from that with bird decoration, which was mainly found in 76.
79. 501. Part of human head in clay, 3·2 cms. high.
502. Cylindrical spindle whorl of clay, 1·1 cms. high.
503. Two bronze pins with twisted heads, 4·8, 3·5 cms. long (Plate XXIX, 2).
533. Base of steatite vase, 5·6 cms. diameter.
Pottery: Coarse ware, as usual. Fine includes sherds from a tankard, type 2, with double-axe pattern and beading round rim and base.
89. 614. Pierced plaque of schist, 5·0 cms. long.
Pottery: As usual.
112. 548. Bronze knife with rivet holes, 13·3 cms. long (Plate XXVIII, 2).
1 clay spool.
Pottery: As usual. Fragments of at least 6 pithoi.
116. 607. Stone grinder, 3·7 cms. high.
624, 625, 626. Three cylindrical spindle whorls of clay, 1·1, 1·4, 1·8 cms. high.
627. Whetstone, 7·5 cms. long (Plate XXX, 3).
Fragments from at least two clay statues of goddesses.
Part of clay plaque.
Pottery: Coarse ware as usual. More comparatively whole fine vases than in general, including at least 3 stirrup-jars and 6 or more pyxides, one, of type 4, having a small cup on the rim.

Broad Road and Square South of Quarter 11 and West Road, 56, 117 (Plate IX).

The continuation of Broad Road, 56, between 61 and 79 is extremely narrow. Originally, however, opposite the south-west corner of the latter it broadened out into a good-sized square, some of the paving of which probably ran over the roof of the oven above described. This square was later diminished, and its exit, uphill to the west, was blocked by the construction of 86 and 88 (see immediately below). Northwards, however, a branch (117) continues to serve the Cliff Houses (p. 93 below).

Objects.

117. One clay spool.
Pottery: As usual. The base of one bowl shows compass-drawn circles.
For objects and pottery from 86, 88 which may have come from the square see below.
12. *The Central West Quarter, 66-9, 81-8, 96, 97, 100 (Plates IX; XX, 6-XXI, 3).*

The first group of rooms in this quarter consists of 66-68 and 81. 66 is an entrance passage. The exact position of the door into 67 is uncertain, since the whole length of wall is little higher than a high threshold. From 67 a step-ladder must have led to 68. In this room the projecting rock and walling formed a fireplace, filled with charcoal and carbonised earth

at the south end. 81 was also reached from 67 down a steep step. There is a rock ledge here round two sides.

The second group consists of 82-84, 86 and 88. 88 is, as we have seen, built over the square. It is very like 58 in appearance, though no cult objects were found in it. 86 is also an addition. It acts as a corridor to 84. Exactly how 83 and 82 were reached from here is not clear, possibly the set-back in the north-west corner of the latter marks the position of a door. The latter room has a raised bench of virgin rock at the west end. Both 83 and 84 have earlier walls below the level of the floor. It has been suggested above that they may indicate some original plan for a larger 61. 83 was a very low room—1.50 metres, at the most. This is shown by the position of the door from 85 which leads on to its roof.

The third group was probably connected with the last by means of a flight of stone steps in the west wall of 84. The confusion of fallen stone here was great. It appeared certain, however, that there was no regular wall at this point. From 85, which had a small ledge in its west wall (Plate XX, 6), on which, no doubt, the cult objects stood, a small chamber, 87, was entered. This had a low rock table at its south end. Just inside the door were two large pieces of carbonised wood, perhaps fallen jambs. 85 also had an exit on to the roof of 83. At the south end of 85 is a door to 69. The south-west corner of this room is virgin rock cut back (Plate XXI, 2). In the north-west corner a large regular dais of rock has been left. There is a door leading eastwards on to the roof of 81 and 82 (Plate XXI, 1). If the entry to 85 from 84, above suggested, did not exist, this door must have been the only entrance to the group of rooms.

The fourth group, 96, 97 and 100, was entered from the top end of Broad Road, 103. For some reason the door was later blocked. The step which leads down from the road into 100 is continued as a ledge along the whole of the north side. It is possible that there are traces of a door leading on to the roof of 87. The west wall of both 100 and 97 is very rough. In both corners a slight stretch of imagination could picture steps, those to the north leading up towards 105, those to the south to 'the naughty nineties.' In the south-east corner of 96 is a small patch of stone paving from which a jar had fallen (Plate XXI, 3).

Objects.

66-68(*Surface*.) 433. Conical spindle whorl of steatite, 0.7 cms. high.

434. Part of steatite pestle, 3.2 cms. high.

Pottery: As usual.

67. 435. Circular base of schist, 4.4 cms. diameter.

436. Lump of green mineral.

437. Conical spindle whorl of clay, 2.5 cms. high.

521. Part of bone pin, 2.8 cms. long (Plate XXVIII, 4).

522. Bronze stylus-shaped instrument, 4.4 cms. long.
One clay spool.
Pottery: As usual, but few sherds from pithoi and one from a larnax.
68. 438. Steatite disc inscribed in degenerate Minoan characters, 6.3 cms. diameter (Plate XXX, 4).
439. Bronze ring with plain bezel at right angles to hoop, 1.9 cms. diameter (Plate XXIX, 2).
Pottery: As usual. Many pithos sherds.
69. 440. Implement of stone, 8.0 cms. high (Plate XXX, 1).
441. Fragment of steatite bowl.
442, 443, 444. Three conical spindle whorls of steatite, 443 inscribed on the base, 1.4, 2.1, 1.4 cms. high.
445, 446, 447. Three conical spindle whorls of clay, 2.2, 1.5, 1.5 cms. high.
448. Bronze blade with rivet holes, 14.0 cms. long (Plate XXVIII, 2).
449. Fragment of iron, 5.3 cms. long.
Pottery: Sherds from at least 9 pithoi and 3 pithoid jars, otherwise coarse and fine ware as usual. Tankard spout and hut-urn in coarse ware.
81. 463. Fragment of bronze.
464. Neolithic stone axe, short type, 3.8 cms. across (Plate XXX, 2).
473. Biconical spindle whorl of clay with impressed design of circles, 1.8 cms. high.
474. Twisted bronze fibula, 7.0 cms. long (Plate XXIX, 2).
475. Bronze plaque with incised decoration of spirals and dots, 11.0 cms. long (Plate XXIX, 1).
476, 477. Two bone pins, 8.8, 5.3 cms. long (Plate XXVIII, 4).
Pottery: As usual. Two larnax fragments.
82. 478. Fragment of bone pin, 2.2 cms. long.
479, 480. Fragments of bronze.
481. Bronze ring, 1.8 cms. diameter (Plate XXIX, 2).
482. Conical spindle whorl of steatite, 1.1 cms. high.
Pottery: As usual, but much broken.
83. 483. Bone pin, 9.7 cms. long (Plate XXVIII, 4).
496. Fragment of bronze.
535. Circular bone lid, pierced, 4.5 cms. diameter.
536. Conical spindle whorl of steatite, 0.7 cms. high.
Piece of yellow colouring-material.
Pottery: As usual.
84. Pottery: As usual.
85. 504. Torso of clay figurine, 4.8 cms. across.
505. Bronze ring, 2.8 cms. diameter (Plate XXIX, 2).
506. Conical spindle whorl of steatite, 2.2 cms. high.
507. Rectangular bone tube, punctuated decoration, 7.3 cms. long (Plate XXVIII, 4).
512. Steatite disc, 10.5 cms. diameter.
514. Torso of clay figurine, probably from a kalathos, 9.0 cms. high (Plate XXXII, 2).
515. Head of female figurine in clay, 6.0 cms. high (Plate XXXII, 2).
516. Head of bull in clay, horns broken, 15.0 cms. high (Plate XXXII, 2).
517. Fragment of similar but smaller head.
Flat stone tool.
Pottery: Large quantities of the usual types. Sherd from an altar.

86. Pottery: As usual.
87. 556. Fragment of clay figurine of animal, 8.7 cms. long.
Clay figurine of a horse (Plate XXXII, 1).
Pottery: One pithos, lacking the rim, sherds from the usual tripods, jars and dishes.
A fine jug with beaded decoration and other fine sherds, mostly from kylixes and bowls.
88. 497. Curved bronze blade, 8.8 cms. long (Plate XXVIII, 2).
498. Fragment of iron, 6.5 cms. long.
Pottery: As usual.
96. 500. Part of bronze tool or weapon, probably a sword, 22.3 cms. long (Plate XXIX, 2).
Boar's tusk.
Pottery: As usual, but little fine ware.
97. 518. Bronze knife with rivet holes, 19.2 cms. long (Plate XXVIII, 2).
519. Flat, plaque-shaped whetstone, decorated round the edges, 11.8 cms. long.
Pottery: As usual. Many pithos sherds, and perhaps part of the base of a larnax.
100. 541. Stone spool, pierced, 2.7 cms. diameter.
542. Bone implement, 5.3 cms. long (Plate XXVIII, 4).
543. Point of bone implement.
610. Four-sided pounder of limestone, 8.0 cms. high (Plate XXX, 1).
Pottery: As usual, but few pithos sherds. Fine ware includes at least 3 pyxides, one of type 3.

13. *The Southern Shelters*, 62-65, 90-95, 98, 99 (Plates IX; XXII, 2).

None of these structures needs any special description. They are clearly the traces of the first arrivals on the site, who walled up crannies in the rock and roofed them with brushwood. Later, no doubt, they would have been used as cattle-byres and sheep-pens, as old rock cuttings are used to-day at Palaiokastros (Polyrrhenia) in West Crete.

Objects.

62. 418. Conical spindle whorl of steatite, 1.0 cms. high.
419. Head of bronze stud, 1.5 cms. diameter (Plate XXIX, 1).
420. Bronze awl, square in section, 7.2 cms. long.
421. Head of clay figurine, 5.5 cms. high.
63. 422. Hoop of bronze fibula, 2.4 cms. across (Plate XXIX, 2).
64. 423, 424. Two conical spindle whorls of steatite, 1.4, 2.0 cms. high.
425. Fragment of bronze.

General.

- Pottery: As usual, including (from 62) a few sherds from a krater in pink clay with a white slip decorated with birds, and the spout of a tankard with strainer holes.
90. 465, 466. Two Neolithic stone axes, 10.8, 4.2 cms. long (Plate XXX, 2).
467. Bull's head in clay, 9.0 cms. long.
468. Conical spindle whorl of clay, 1.6 cms. high.
469. Fragment of bronze.
Pottery: As usual.

91. 470. Conical spindle whorl of steatite, 0.8 cms. high.
 471. Hooked end of bronze pin, 9.2 cms. long (Plate XXIX, 2).
 472. Biconical spindle whorl of clay, 1.6 cms. high.
 Pottery: As usual.
92. 613. Conical spindle whorl of steatite, 1.0 cms. high.
 Pottery: As usual.
93. 484. Part of bone handle, 6.0 cms. long (Plate XXVIII, 4).
 485. Three fragments of bronze needles.
 486. Conical spindle whorl of steatite with compass-drawn rosette on the base, 2.2 cms. high.
 Pottery: As usual.
94. 487. Conical spindle whorl of steatite, 1.6 cms. high.
 Red deer's horns.
 Pottery: As usual. Fragments of 2 large kraters and several kylix stems.
98. Square stone tool.
 Pottery: As usual.
99. Pottery: As usual.

Broad Road between Quarters 12 and 14 B, 101, 103, 105, 111 (Plates IX; XXII, 1).

This part of Broad Road is better preserved than any other. Although the actual paving-blocks have mostly been washed away by a flood (see p. 66), the high steps or water-breaks (πασαμάκια) are well preserved (Plate XXII, 1). It was originally entered from the square to the east (see above) until blocked by 86.

Objects.

101. 611. Forequarters of clay figurine of a bull, legs broken, 9.0 cms. high.
111. 547. Conical spindle whorl of steatite, 1.3 cms. high.

General.

One sherd from an altar and a few from figurines of goddesses.
 Pottery: As usual.

14. *The Cliff Houses (Plates IX; XXI, 5, 6).*

A. The Eastern Block, 75, 110, 118, 119.

There is little to be said about these rooms. The only problem is as to how they were entered. In most cases the north wall is denuded almost to the level of Cliff Road. 75 was probably entered from the east, 72. 110 may have been entered at the re-entrant in the north wall. A flat stone half-way along the north wall of 118 may indicate a threshold. Though there is only a step between 118 and 119, the latter may have once had a separate entrance where the ragged north wall of 117 now is.

Objects.

75. 452. Obsidian core, 4.0 cms. long.
 453. Conical spindle whorl of steatite, 1.4 cms. high.
 454. Bronze barbed arrow head, 6.3 cms. long (Plate XXIX, 1).
 488. Part of bone pin, burnished black, 3.0 cms. long.
 489. Fragment of bronze.
 Large clay spool.
 Pottery: As usual. One pyxis, type 7 and another, type 5, with cross-hatched 'butterfly' design, are uncommon.
110. 523. Conical spindle whorl of clay, 2.9 cms. high.
 524. Bone handle, 8.8 cms. long (Plate XXVIII, 4).
 525. Part of bronze blade, 9.5 cms. long.
 526. Fragment of bronze.
 527. Conical spindle whorl of steatite, 1.2 cms. high.
 528. Stone rubber, 6.6 cms. long.
 529. Pierced slate plaque, 11.2 cms. long (Plate XXX, 3).
 530. Middle Minoan steatite bowl and lid, 5.6 cms. high (Plate XXX, 1).
 531. Fragment of obsidian, found inside the last, 3.2 cms. long (Plate XXX, 1).
 532. Circular stone disc, 5.2 cms. diameter (Plate XXX, 4).
 50 or more clay spools.
 Pottery: Coarse ware includes at least 6 pithoi, as many pithoid jars, one jar with medallion decoration and a large stirrup-jar with an octopus design in red paint. In fine ware fewer bowls and more pyxides than usual. One very large pyxis in red ware with a white slip possesses a lid.
118. 612. Schist plaque, pierced, 3.0 cms. wide.
 Pottery: As usual, but little fine ware.
119. Pottery: As usual, but little fine ware, all apparently from bowls.

14 B. *The Western Block*, 102, 106, 113-115, 120, 121, 126.

The first group of rooms consists of a single house, 113, 114 and 120. The latter is entered from Cliff Road.

It has a stone dais in the south-west corner. This may conceivably have been originally the foundations of a wall connecting with the foundation in 121 (see below). 114 has a perfect example of a jar-stand, or *σταμνοτάκι*, in the north-west corner (Plate XXI, 6). It is 48 cms. high and the depression for the vase is 15 cms. (cf. above, p. 77 in the Great House). 113, the third room of this group, is a room of many entrances. Originally, no doubt, it connected with 114 and had direct access to the square outside 89. When 86, however, was built and blocked the exit of Broad Road (see above, p. 89), a door into that road (111) was made. The fact that the floor of 113 was lower than the road necessitated a water-break. A high threshold would, no doubt, have been better, but no trace of such remains. There is a stone column base in the room (Plate XXI, 5). Its companion to the west has disappeared. Below the floor, even under the column base, are many pits filled with charcoal. These, no doubt, date from the arrival of the first settlers, and can be compared

with the fires made by the two Albanian murderers and the sheep-stealer of Ida, workmen of ours who preferred to spend the night on the spot.

121 is a room by itself. Its entrance is not clear. Towards the east end, below the floor, or rather bordering the virgin rock which forms the west half of the floor, are the foundations of a wall continuing the line of the west wall of 113, 114. To the east of these foundations the deposit goes another 85 cms. lower.

The last group is 102, 106 and 126. The latter was entered from the north. The whole of the west side consists of rock. Hence a very narrow entrance leads to 106. The north part of this alone was roofed with certainty. In it was a small rectangular pit, 15 cms. deep, lined with stones. It is possible that there was a door out to the south into Broad Road (103). 102 and 115 were roofed cellars, reached by a step-ladder from 106. In 102 were found a great number of olive stones, some of them resting in a kalathos base.

Objects.

102. 16 clay spools and fragments of about 22 others.
Pottery: As usual. One tripod pithos.
106. 537. Two fragments of bronze wire.
538. Fragment of bronze.
539. Bronze ornament, perhaps drop pendant, 3.9 cms. long (Plate XXIX, 1).
540. Curved bronze knife, 12.0 cms. long (Plate XXVIII, 2).
553. Fragment of bronze rod.
554. Bronze ring, 2.0 cms. diameter (Plate XXIX, 2).
555. Votive double axe of bronze, 5.8 cms. across (Plate XXIX, 1).
559. Head of clay statuette, 3.8 cms. high (Plate XXXII, 2).
608. Pierced stone plaque, 2.4 cms. wide.
609. Body of clay figurine of animal, 4.8 cms. long.
Two sherds from cult objects, probably altars.
Pottery: As usual. At least 6 pithoi.
113. 549. Globular spindle whorl of steatite, 3.0 cms. diameter.
604. Rectangular whetstone, 17.8 cms. long.
605. Cylindrical spindle whorl of clay, 1.6 cms. high.
Red deer's horn.
Thick, flat, clay plaque, perhaps a baking board.
Pottery: As usual. Fine ware much blackened by fire.
114. 550. Spear-head of bronze, 11.2 cms. long (Plate XXIX, 1).
606. Cylindrical spindle whorl of clay, 1.7 cms. high.
Pottery: As usual. Two comparatively whole pyxides, type 3, one of which has birds and double axes painted on the sides and compass-drawn circles on the lid.
115. 551. Bronze, stylus-shaped implement, 9.1 cms. long.
552. Bronze arrow-head, 6.2 cms. long (Plate XXIX, 1).
Pottery: As usual. One hut-urn.
120. 601. Conical spindle whorl of steatite, 1.1 cms. high.
602. Cylindrical spindle whorl of clay, 0.8 cms. high.

603. Bone pin, 7.0 cms. long (Plate XXVIII, 4).
 629. Neolithic stone axe, long type, 7.5 cms. long (Plate XXX, 2).
 630. Pierced whetstone of schist, 7.0 cms. long (Plate XXX, 3).
 649. Pierced disc of schist, 6.0 cms. diameter.
 650. Conical spindle whorl of clay, 1.1 cms. high.
 One clay spool.

Pottery: As usual, but little fine ware and no pyxides noted.

121. 595. End of whetstone of schist, 6.3 cms. long.
 596. Conical spindle whorl of steatite, 1.1 cms. high.
 597. Conical spindle whorl of clay, 1.5 cms. high.
 598. Part of bronze blade, 7.5 cms. long.
 Pierced stone disc.
 Pottery: At least 10 pithoi and 5 pithoid jars. Other coarse and fine as usual.
 Part of a beaded tankard.
126. Thick, badly baked, clay slab, perhaps a baking board.
 Pottery: As usual, but much broken.

The Cliff Road.

This path begins at the top end of 72 and runs along the edge of the cliff, serving the above quarter until the mass of rock at the north-west corner of 126 blocks it.

Objects.

Pottery: As usual, but much broken. One complete stirrup-jar, type 2, and a pithoid jar, type 1, from outside 120.

15. *The Northern Shelters*, 104, 107-109, 122-125, 127 (Plate IX).

These shelters are precisely similar to the Southern Shelters (see above, p. 92), 108, however, showed no traces of roofing, and may have been a very steep path up to 109, perhaps made easier by added steps of wood or stone which have disappeared.

Objects.

104. 573. Conical spindle whorl of steatite, 1.0 cms. high.
 574. Bronze awl, 11.3 cms. long.
 Part of clay plaque with raised design.
 Pottery: As usual, but no pyxides or stirrup-jars noted.
107. 544. Cylindrical spindle whorl of clay, 1.2 cms. high.
 545. Rectangular steatite bead, 1.5 cms. square.
 575. Stone grinder, 5.2 cms. wide (Plate XXX, 3).
 One clay spool.
 Red deer's horns.
 Flat clay slab with handles, perhaps a baking board.
 Pottery: As usual.
108. 546. Bow of twisted bronze fibula, 7.2 cms. long (Plate XXIX, 2).
 576. Bone pin, 8.2 cms. long (Plate XXVIII, 4).
 577. Head of clay figurine, 2.8 cms. high.

578. Fragment of bronze with rivets, 5.0 cms. long.
 628. Cylindrical spindle whorl of clay, 1.3 cms. high.
 Pottery: As usual.
109. 560. Head of clay figurine, 3.3 cms. high.
 561. Biconical spindle whorl of clay, 2.3 cms. high.
 562. Bone instrument, 4.9 cms. long.
 563. Conical spindle whorl of steatite, 0.5 cms. high.
 564. Bronze awl, 9.7 cms. long.
 565. Hooked bronze pin, 8.2 cms. long (Plate XXIX, 2).
 566. Part of bone instrument, 6.5 cms. long.
 567. Neolithic axe head of schist, long type, 8.5 cms. long.
 568. Cylindrical spindle whorl of steatite, 0.8 cms. high.
 569, 570, 571. Three conical spindle whorls of steatite, 0.8, 1.2, 0.9 cms. high.
 572. Conical spindle whorl of clay, 1.6 cms. high.
 Pottery: As usual. The fine ware includes sherds from at least 3 kraters.
122. 590. Leg of clay figurine of ox, 7.0 cms. high.
 591. Conical steatite weight, 3.4 cms. high.
 592. Conical spindle whorl of steatite, 1.0 cms. high.
 593. Bronze needle, 12.7 cms. long.
 594. Fragment of bronze needle, 5.2 cms. long.
 Boar's tusk.
 Pottery: As usual, but mostly much broken. One hut-urn with lug on door.
123. Pottery: As usual. Base of a conical rhyton, of L.M. III type.
124. 579. Limestone pounder, 6.5 cms. high.
 580. Spout of Early Minoan steatite bowl (Plate XXX, 1).
 581, 582, 651. Three pierced discs of schist, 9.5, 7.5, 6.7 cms. diameter.
 583. Conical spindle whorl of clay, 1.5 cms. high.
 584. Cylindrical spindle whorl of clay, 1.6 cms. high.
 585, 586, 587, 588. Four bone pins, 7.5, 7.5, 7.3, 7.2 cms. long (Plate XXVIII, 2).
 589. Bronze rod, 6.2 cms. long.
 Pottery: As usual.
125. Pottery: As usual.
127. 640, 641. Two conical spindle whorls of steatite, 1.8, 1.2 cms. high.
 645. Bronze knife with curled tang, 10.7 cms. long (Plate XXVIII, 4).
 646. Bronze ring, 1.7 cms. diameter (Plate XXIX, 2).
 647. Lump of lead.
 648. Triangular whetstone, 9.2 cms. long (Plate XXX, 3).
 653. Bronze nail, 5.0 cms. long (Plate XXIX, 1).
 Clay weight.
 Pottery: As usual.
16. *Summit*, 128, 129, 'Peak Sanctuary' (Plates IX; XXII, 3, 4).
 128 is evidently a fort or look-out post, to-day called a βίγλα (Latin *vigil*). Two sides are walled, a third is rock, the fourth is open (Plate XXII, 3). 129 is merely a wall between two rocks. It is too well built to be one of the old shelters, though it may have been used for a sentry.

In the crannies of the rocks to the north-east were found quantities of figurines, etc., too fragmentary to be catalogued before mending (Plate XXII, 4). As can be seen from the lists of objects given above, similar fragments were comparatively common in the Northern Shelters and the Cliff Houses. These must have slipped or been washed down. Since the summit has been denuded it is impossible to say whether the offerings were from some building or area on the very top or whether they were placed among the rocks as they were found.

Objects.

128. Pottery: As usual, but little fine ware.

129. Pottery: Few pithos sherds but many dishes, type 6. Other coarse and fine ware as usual.

From Among the Rocks.

665, 666. Two cylindrical spindle whorls of clay, 1.7, 1.5 cms. high.

667, 668. Two fragments of lead.

669. Tip of bronze blade, 4.5 cms. long.

670. Decorated bronze implement, 13.1 cms. long (Plate XXIX, 1).

671. Fragment of bronze blade, 3.0 cms. long.

672. Bronze arrow-head, 7.1 cms. long (Plate XXIX, 1).

673. Bronze nail or stud, 1.1 cms. diameter (Plate XXIX, 1).

674. Small pierced whetstone, 3.5 cms. long.

675, 677. Two conical spindle whorls of steatite, 1.3, 1.2 cms. high.

676. Half of small bone handle, 3.3 cms. long (Plate XXVIII, 4).

Many fragments of clay figurines, both human and animal (Plate XXXIII, 1, 3).

Many miniature vases (Plate XXXIII, 2).

Pottery: Small sherds of the usual types.

From the Surface of the Slopes Generally.

124. Conical clay loom weight, 5.4 cms. high.

125, 126. Two cylindrical spindle whorls of clay, 1.3, 1.7 cms. high.

127. Part of unfinished limestone bowl, 6.7 cms. diameter.

128. Fragment of limestone palette.

557. Head of clay statuette, 3.0 cms. high.

558. Upper part of legs of clay statuette, 4.8 cms. high.

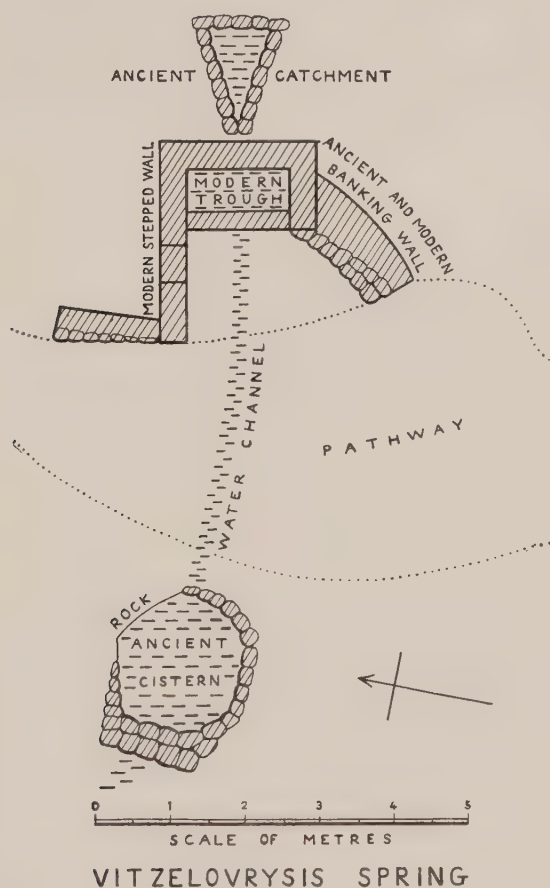
B. THE SPRING.

1. *Vitzelovrysis Spring* (Plates XI; XXII, 6, XXIV, 4, and Fig. 1).

The 'Spring of the Eagle,' or, more properly, the Egyptian Vulture, lies on the western slopes of Megale Koprana, among the tombs of Ta Mnemata. The ancient path must here, at least, have followed the modern. On the south side of the spring the retaining wall is well preserved to a height of nearly a metre. As it runs into the hillside, a further

piece of banking about 50 cms. high is built above and farther back. On the north side the banking, except for a fragment along the path itself, has gone completely.

The actual emergence of the spring had disappeared, but the καταπότι



VITZELOVRY SIS SPRING

FIG. I.

or channel down which it ran had been roughly roofed over by means of leaning slabs, and farther back still were well-built walls set at an angle to catch all the water and lead it into the channel.

Below the path is a stone-lined tank 65 cms. deep, used then as to-day for watering animals.

Objects.

396. Four clay figurines of oxen, 10.0, 9.8, 8.0, 7.0 cms. long.

397. Clay figurine of a sheep, 10.5 cms. long.

398. Head of clay figurine of a man, 5.0 cms. high.

Pottery: Mostly coarse sherds from water jars of the usual types. No tripod legs noted. Some fine ware including one sherd with compass-drawn circles.

2. *Vitzelovrysis Sanctuary* (Plates XI; XXII, 5).

About 25 metres above the spring, on a rocky knoll, was a deposit containing the objects which follow. From it must also have come the Archaic and Classical remains from Ta Mnemata, and possibly the figurines found by the spring itself. Although the rock is so close to the surface, there was probably a sacred tree here in Archaic times, or even before.

Objects.

394. Disc-headed bronze pin, 7.9 cms. long.

399. Head of clay figurine, 3.0 cms. high.

400. Part of 'Dedalic' head, 6.5 cms. high.

401. Part of clay plaque with relief, 5.5 cms. wide.

402. Clay knob (from the head-dress of a goddess?), 2.4 cms. long.

403. Fragment of clay relief, 2.8 cms. wide.

404, 405, 406, 407, 408, 409, 410. Fragments of clay figurines of animals.

116, 117, 118, 119, 120, 121 (bought or found on the surface). Clay figurines of animals (Plate XXXII, 3).

375. (bought) Face of terracotta, 9.5 cms. high (Plate XXXII, 4).

Pottery: Very little, all of Archaic date.

IV. THE TOMBS

(Plates XI-XIII; XXIV, 3; XXV-XXVII)

The tombs fall into two groups. The first and, as far as can be seen, largest, at the spot called τὰ μνήματα (the tombs), lies round about the spring Vitzelovrysis on the way up to the city from the plain. The second, close to the spring Astividhero (Brushwood spring), lies near the path up to the city from the plain of Nesimos.

The tombs in each group were numbered as they were excavated, not in chronological order, and the objects from them were catalogued in the general series with the prefix M. (for Ta Mnemata) or A. (for Astividhero), followed by the tomb number.

A short description of each tomb will be given, together with a list of the objects found in it. At the end is a general discussion.

1. *Ta Mnemata.*

M. 1 and 2 (Plates XII; XXV, 2, 3).

These tombs are side by side, a retaining wall running behind them to the east—i.e., against the hill slope. This wall is built of very large

stones. It seems to tail off at either end, though there may be traces of a return to the south. A low wall at right angles divides the tombs. Both tombs are rectangular at the base, and both had been paved with irregular slabs of soft shale. In both the roughly circular vaulting begins with the second course.

1 is probably the tomb excavated by Sir Arthur Evans. It has a long dromos one course high, and blocked to the same level, so that it forms an irregular pathway. The front of the tomb had been destroyed, though enough remained to make all but the height of the door certain. The entrance was to the left. The heavy block of masonry which surrounded the vault was two courses high and reached to within 30 cms. of the top. The height of the vault was roughly 1.25 metres, of which 30 cms. was below the ground.

2 was considerably smaller. There was no dromos. The door was 50 cms. high. Within, however, were stones from the blocking too large to have been introduced through it. Interment, therefore, must have taken place through the roof, which was found intact. There were remains of three bodies, the skulls being at varying levels in the south-east corner. Near the top of the vault were traces of carbonisation in the earth. No such traces, however, were found on the bones or sherds.

Objects.

- M. 1.* 100. Bronze pin, 15.0 cms. long (Plate XXVIII, 1).
 101. Conical spindle whorl of steatite, 1.1 cms. high.
 102, 103. Two cylindrical spindle whorls of clay, 1.8, 1.1 cms. high.
 104. Hindquarters of clay figurine of animal, 4.0 cms. long (Plate XXXII, 3).
 Bones: None.
 Pottery: Many sherds from a bath-shaped larnax with traces of dark, painted decoration.
 Rim and handle of a pithos with punctuated decoration.
 Small stirrup-jar in grey clay.
 Sherds from another stirrup-jar.
 Base of bowl (or possibly kalathos ?) in fine buff clay with red, painted decoration.
 Some other fine sherds including a rim of the type of Basins 6.
 Small Geometric one-handled jug with the base rough as though from attachment to another vessel or lid. Dark paint on the lower part of the body and dark lines above.
- M. 2.* 105. Incised (?) fragment of bone, 4.4 cms. long.
 106. Head and shoulders of clay animal, 7.6 cms. long (Plate XXXII, 3).
 107. Hoof and lower part of the leg of clay animal, 5.3 cms. long (Plate XXXII, 3).
 Bones: Remains of three human bodies.
 Pottery: Many sherds from a coarse, red tripod.
 A few fine sherds including one from a stirrup-jar.

M. 3 (Plates XII; XXV, 4).

The whole of the front of this tomb is destroyed. From the amount of stone nearby, however, it seems probable that there was some kind of a dromos. The ground plan is rectangular, and the circular vaulting does not begin for three courses. The plaque floor seems to have been raised along the back wall to form a kind of platform. The bones and the two complete vases were found on the platform, the bronze pin immediately in front of it. The height of the vault seems to have been between 1.25 and 1.50 metres.

The tomb was not entirely free standing. The retaining block of masonry slopes up into the hillside (Plate XXV, 4).

Objects.

M. 3. 182. Bronze pin, in two parts (Plate XXVIII, 1).

Bones: Remains of one human body.

Pottery: Two stirrup-jars, types 2 and 4.

M. 4 (Plates XII; XXVI, 1, 2).

This is one of the largest and most impressive tombs. It runs parallel to the hillside. There is a long dromos consisting of a single course of shaped stones on either side. The space between is filled with smaller stones, which are bonded in with the side walls. The entrance was blocked with one large stone. The dromos reaches it with its surface on a level with the top of the door. The plan is circular from the lowest course, and the stones are larger and better shaped than in most of the tombs. The lintel consists of three blocks. The height of the vault cannot have been much more than a metre. There are traces of a plaque floor. The surrounding block of masonry is well built, though somewhat irregular at the back. It varies in height from 40 to 60 cms.

The south-east angle formed by the dromos and the masonry of the tomb has been walled in with rough blocks. The space is paved, and bones were found here.

Much of the pottery was found scattered about outside the tomb, particularly to the west.

Objects.

M. 4. 171. Bronze needle with eye-hole well down, 6.9 cms. long (Plate XXVIII, 1).

172. Clay figurine of a calf, 8.0 cms. long.

173, 174. Two fragments of similar figurines, 5.4, 7.1 cms. long.

175, 176. Two bow fibulae of bronze, 6.0, 6.2 cms. long (Plate XXVIII, 1).

177. Part of bronze ring, 2.1 cms. diameter (Plate XXVIII, 1).

178. Two fragments of iron, 4.7, 2.6 cms. long (Plate XXVIII, 1).

Bones: Remains of five human bodies.

Pottery: Part of large pyxis in coarse red clay.

Sherds from a small vessel in red clay with horizontal ribbing, probably a pyxis.

Two stirrup-jars.

Sherds from another stirrup-jar.

Base of a krater in harsh clay with a dark wash.

(*Outside, in partition.*)

Bones: Remains of one human body.

Pottery: Fragments of one vase.

(*Outside, scattered.*)

Pottery: A number of coarse sherds including two apparently from a larnax.

Two sherds in red clay with ribbing and medallion decoration.

Fine sherds from stirrup-jars.

Krater, type 2.

Other krater sherds.

Kylix with scroll decoration in brown paint, type 1.

Tankard with beaded decoration and red paint, type 2 (Plate XXIV, 6).

M. 5 and 6 (Plates XII; XXV, 5).

These two tombs resemble 1 and 2. There is a retaining wall at the back of 5 against the hillside, and a wall at right angles projects from it, separating the two tombs. In neither case is there a dromos. 5 is rectangular for three courses. The lintel has gone, but a large stone found nearby, 1 metre long, may have served for one of the slabs. Traces of blocking remained. There was no paving. The height of the vault seems to have been about 1.50 metres. The stones are large and carefully selected.

6 is smaller and less well built. The back of the surrounding masonry is very irregular, and may have run into the hillside, as in the case of 3. A single lintel slab survived, but had fallen. The capping of the vault was extremely rough. Inside were found blocks too big to have been introduced through the entrance. The height of the vault was not more than 1 metre and that of the entrance under 50 cms. Irregular paving existed.

Objects.

M. 5. Bones: None.

Pottery: Sherds from two kylixes, types 1 and 2.

M. 6. Bones: Remains of one human body.

Pottery: A few indistinguishable coarse sherds.

Sherds from a krater.

Outside M. 5 and M. 6.

Pottery only: Much coarse ware of the types found in the city.

Sherd from a larnax.

Sherds from the kylixes represented inside *M. 5*.

Some other fine sherds of the usual types.

Overhanging rim, probably Archaic.

A few fragments of fourth-century glaze.

M. 7 and M. 8 (Plates XII; XXVI, 3, 4).

These two tombs again form a pair. Running as they do, however, parallel to the hillside, they have no retaining wall, although the east wall of the dromos of 7 is rather high. The east side of the surrounding block of masonry finishes off very roughly, and may have run into the hillside. The dromos was unlined. The door was only 35 cms. high, and was blocked to a depth of one course. There were two lintel slabs. The inner plan is rectangular for two courses. The height of the vault must have been about 1.50 metres, of which 30 cms. was below the level of the entrance. The usual plaque floor was found.

8 is the largest and best-built tomb in either of the cemeteries. The masonry surrounding the tholos is squarely built and of two courses. The dromos, as in 7, is unblocked save for a few small stones near the door. The door is 42 cms. high. There are two lintel slabs, the inner being set slightly lower than the outer. There is a drop of 25 cms. from the floor of the dromos to the floor of the entrance and tholos. The latter is polygonal rather than round in plan. Some paving survived. Inside there were two stones too large to have been introduced through the door. They must have been intended as a blocking. The vault seems to have been over 1.50 metres high.

From the north-east corner of the surrounding masonry a rough wall extends towards 7. To the north of this, below the earth containing the sherds thrown out of the tomb, is a deposit of black earth. This extends for a patch inside the dromos and the tholos itself, as well as for a short space to the west of the dromos. It has penetrated under the walls in some places. This most probably marks the site of a later encampment, perhaps of charcoal-burners who found a shelter here.

Objects.

- M. 7.* 183, 184. Two thin bronze discs, 3.3, 3.7 cms. diameter (Plate XXVIII, 1).
 371. Bone needle, 3.5 cms. long.
 Bones: Remains of at least two human bodies.
 Pottery: Sherds from one or more stirrup-jars.
 Kylix, type 1.
- M. 8.* 157, 158. Two bow fibulae of bronze, 4.3, 6.2 cms. wide (Plate XXVIII, 1).
 159, 160, 161. Three bronze rings, 1.7 cms. diameter (Plate XXVIII, 1).
 162, 163, 164. Three spiral hair rings of bronze, 1.1, 1.1, 1.2 cms. diameter (Plate XXVIII, 1).
 165. Tubular bone bead, 0.9 cms. long.
 166. Bronze implement, curved at the end, 13.0 cms. long (Plate XXVIII, 1).
 169. Many small bronze discs with clips at the back for attachment to leather or material, 0.8 cms. diameter.
 181. Conch shell, 20.0 cms. long.
 Bones: Remains of three human bodies.
 Pottery: Stirrup-jar, type 6.

Two kraters, types 1 and 2. That of type 2 has a decoration of lilies.

Sherds from smaller vessels in fine clay.

Circular lattice-work stand or altar in red clay (Plate XXXV, 7).

(*Black earth E. of dromos.*)

167. Fragment of iron needle, 1.2 cms. long.

168. Fragment of iron handle, 4.6 cms. long.

170. Headless terracotta statuette of seated female figure, 13.5 cms. high (Plate XXXII, 4).

179. Part of clay statuette of ox, 9.5 cms. long.

180. Fragment of terracotta figurine of female, 4.0 cms. high.

Pottery: Kylix, type 2.

Many sherds from a circular lattice-work stand or altar in red clay with 'herring-bone' decoration.

Other coarse and fine sherds, mostly of the usual types but some Archaic and later.

(*Outside, scattered.*)

Pottery: Sherds from the kraters and other vessels represented inside.

Sherds from a very fine red-painted kylix.

Walls below M. 7 and M. 8.

A few walls were found a little below these two tombs. They were too much destroyed to make sense.

Objects.

395. Head of clay figurine of a bull, 4.8 cms. high.

Pottery: Sherds of the usual types.

A few archaic sherds, one with overhanging rim.

M. 9-M. 15 (Plates XIII; XXVI, 5, 6).

This group of tombs lies to the south of Vitzelovrysis, above the pathway, which here probably coincides with the ancient approach to the city. Although there is no link between any of them, such as a retaining wall, yet the fact that they are so close together and are all oriented in the same direction seems to give them a, perhaps spurious, connection. 9-12 are on more or less the same level and follow the contour of the hill. 15 is immediately below 9, and 14 is lower still, but to one side.

9 was largely built into the hillside, thus obviating the necessity of much surrounding masonry. The lintel has disappeared. The jambs are of small stones. The floor plan is rectangular for one course only. Six courses survive, the capstone alone being missing. The height of the vault seems to have been only some 60 cms. Some paving remained in the south-east corner. The entrance seems to have been blocked. There is no dromos.

10 is almost precisely similar, the only point of difference being that the jambs consist of two upright slabs of stone 35 cms. high, across which the lintel must have rested (Plate XXVI, 5).

11, again, is of the same type. Differences are the presence of one wall of a dromos, two courses built square in the tholos, and better-built, square jambs of which two courses remain (Plate XXVI, 6).

12, though very much ruined, is of the same type as 11, with a square base for the two surviving courses. The jambs are as in 10. No paving has survived in this tomb, but three stones across the inner side of the entrance form a kind of threshold.

Of 13, only a circle of rough stones, some on end, remains.

14 is the only tholos at Karphi which is circular outside as well as inside. Like the rest of this group, it must have been very low, and is the only one which may have been almost completely covered with earth. The lintel is very large. The entrance, blocked in antiquity, was 36 cms. high. The floor was paved.

15 resembles most of the others by being rectangular, both inside and out. Only the back half ran into the hillside. There is no visible entrance at any point. There was no paving, and the height of the vault was 80 cms.

Objects.

- M. 9.* 378, 379, 380. Three bronze pins, 25.4, 18.6, 17.2 cms. long (Plate XXVIII, 3).
Bones: Remains of at least four human bodies.
Pottery: Jar in coarse red clay resembling jar 1, but with vertical handles.
Stirrup-jar, type 4.
- M. 10.* 381. Bronze pin, 13.5 cms. long (Plate XXVIII, 3).
Bones: Remains of four human bodies. Teeth of a sheep.
Pottery: Two small vases, both probably one-handled jugs of type 1.
- M. 11.* 382. Hoop of bronze bow fibula, 3.5 cms. across (Plate XXVIII, 3).
383. Two fragments of iron blade, 4.5, 1.7 cms. long (Plate XXVIII, 3).
384. Fragments of large iron fibula (Plate XXVIII, 3).
385. Cylindrical spindle whorl of steatite, 0.9 cms. high.
386. Fragment of rock crystal.
Top of pottery rhyton in the shape of a human head.
Bones: Remains of two human bodies. Some animal teeth.
Pottery: Two sherds in red clay may be from a large stirrup-jar, type 5.
One stirrup-jar type 3 and two probably type 5.
Bowl in very soft clay, type 1.
Small side-spouted jar with blobs of paint on the shoulder, type 1.
' Duck ' vase.
- M. 12.* 387. Conical spindle whorl of steatite, 2.2 cms. high.
Bones: Remains of four human bodies.
Pottery: Spouted jar, type 1.
- M. 13.* 388, 389. Two bronze pins, 10.4, 9.3 cms. long (Plate XXVIII, 3).
390. Spiral bronze hair ring, 1.5 cms. diameter (Plate XXVIII, 3).
Bones: None.
Pottery: Fragments of one small vase probably cup, type 1.

- M.* 14. 391. Biconical spindle whorl of steatite, 1.2 cms. high.
 Bones: Remains of one human body.
 Pottery: Four stirrup-jars, two of type 1 and two of type 2.
 Bowl, type 1.
 Carinated, spouted cup.
 Two bases of cups or bowls.
 One-handled jug, type 5.

- M.* 15. Bones: Remains of two human bodies.
 Pottery: Sherds of large basin, type 3.
 Tripod leg with circular impressions at the top.
 Small two-handled cup, probably Archaic.

M. 16 and *M.* 17 (Plates XIII; XXVII, 1).

These two tombs are actually built together. The hillside was cut back to receive them, but it is probable that they were free-standing. They are taller than any of the others, 16 being over 2 metres and 17 about 1.75 metres high. 16 had three slabs over the entrance, 17 two, the entrance itself in the latter projecting out as in 10 above. Both entrances were blocked. Traces of paving survived in 16 only.

Objects.

- M.* 16. Bones: Remains of four human bodies, as well as of dog, sheep and ox.
 Pottery: Three stirrup-jars, one of type 1, two of type 2, but with foot of type 7.
 One-handled jug with trefoil mouth.
 Sherds of small vase in red clay with white slip, probably spouted-jug of type 1.
 Miniature kalathos in red clay (found practically under the paving slabs).
- M.* 17. 392. Bronze ring, 2.0 cms. diameter (Plate XXVIII, 3).
 393. Hoop of bronze bow fibula, 4.5 cms. across (Plate XXVIII, 3).
 Bones: Remains of three human bodies as well as of horse, ox and sheep or goat.
 Pottery: Three stirrup-jars, one with foot of type 7 and spout of type 4, the others much broken.
 Two small bowls, type 2.
 Two spouted jugs, one of type 1.
 One-handled jug of type 1 but with flat lip.
 Base of large basin, type 3.
 Rim of basin, type 6.
 Part of base of tripod, type 3.

2. *Astividhero.*

This group may really be regarded as one, though it actually consists of a pair of tombs, 2 and 3, and two isolated tombs, 1 and 4. There may be other tombs in the district. None were searched for and none were spoken of.

A. 1 (Plates XIII; XXVII, 2).

This tomb runs into the hill at the back. The surrounding mass of masonry is two courses deep in front and one at the back. There was no dromos. The lintel had disappeared, but the blocking of small stones remained. The tomb is square for the lowest course. The floor had been paved, though the slabs only survived at the edges. On it were found three large blocks which were too big to have fallen through the small hole in the roof. The height of the vault was 1 metre.

Objects.

- A. 1. 150. Conical spindle whorl of steatite, 1.5 cms. high.

Bones: Remains of one human body.

Pottery: Stirrup-jar, type 1.

Two cups, one of type 2, the other in soft red clay.

Small bowl.

A. 2 and A. 3 (Plate XIII).

These form a pair. There is no retaining wall, and they were built back into the hill. A wall of large blocks, however, separates them, and there were traces of another wall west of 3. The east side of the supporting masonry of 2 has largely disappeared. The tomb is square for its lowest three courses. It is paved with a layer of λεπίδα or waterproof earth. The entrance, however, has a raised paving of stones. As in M. 10, it projects slightly from the façade. One lintel slab remains. It is possible, since it overlaps the outer jambs, that it was the only one. The door is 45 cms. high. It is impossible to tell the height of the vault. 3 is circular from the bottom. The paving is of stone. The height of the vault is 90 cms. The entrance is set obliquely, and the lintel has fallen across it over the blocking of small stones.

Objects.

- A. 2. Bones: Few and much damaged.

Pottery: Fragments of three small vases, one with a beaded rim.

- A. 3. Bones: Many but much damaged.

Pottery: Stirrup-jar, type 2.

Two cups, type 1.

Small bowl, type 2.

Fragments of two other small vases.

A. 4 (Plates XIII, XXVII, 3-5).

This tomb runs alongside the hill. There is a fairly long dromos, and the tomb was evidently entirely free standing. Inside, the lowest course is rectangular. The floor is of stone plaques, and the vault was about 1.10 metres high. The dromos, but not the entrance, was blocked.

The outer of the two lintel slabs had to be removed, showing the small stones wedged between the two. The pithos was found partly in the entrance, partly in the chamber. Since when unbroken it would have been too large to pass through the entrance it must have been inserted through the roof and its sherds scattered later.

Objects.

- A. 4. Bones: Remains of one human body.
 Pottery: Large pithos with 'herring-bone' moulding.
 Sherds of a stirrup-jar in soft, pink clay.
 Bases of two cups or bowls in similar clay.

General Discussion.

Architecturally the tombs are all of the same class—that is to say, wholly or partly free-standing tholoi. Further distinctions may be made by noting the presence or absence of a dromos or a projecting entrance, whether the plan of the lowest course of the tholos is rectangular or circular, whether the tomb runs into or parallel with the hillside, the orientation¹ and the arrangement of the tombs singly, in pairs or in groups.

The following is a table of these features.

Wholly free-standing.

M. 1, 2, 4, 5, 6, 7, 8, 16, 17. A. 4.

M. nine + A. one = ten.

Partially free-standing.

M. 3, 9, 10, 11, 12, 13, 14, 15. A. 1, 2, 3.

M. eight + A. three = eleven.

Dromos.

M. 1, 3 (?), 4, 7, 8, 11. A. 4.

M. five (? six) + A. one = six (? seven).

No dromos.

M. 2, 5, 6, 16. A. 1, 3.

M. four + A. two = six.

Projecting entrance.

M. 9, 10, 12, 13 (?), 14, 15 (?), 17. A. 2.

M. five (? seven) + A. one = six (? eight).

Rectangular at base.

M. 1, 2, 3, 5, 7, 8, 9, 10, 11, 12, 15, 16, 17. A. 1, 2, 4.

M. thirteen + A. three = sixteen.

Circular at base.

M. 4, 6, 13, 14. A. 3.

M. four + A. one = five.

¹ As in the case of the city, north is 'local north,' *i.e.*, as in Egypt the Nile is always assumed to run north and south, so here the hillside is assumed to run north and south or east and west.

Axis of tomb at right angles to the hillside.

M. 1, 2, 3, 5, 6, 9, 10, 11, 12, 13 (?), 14, 15 (?), 16, 17. A. 1, 2, 3.
M. twelve (? fourteen) + A. three = fifteen (? seventeen).

Axis of the tomb parallel to the hillside.

M. 4, 7, 8. A. 4.

M. three + A. one = four.

Orientation. Entrance from the North.

M. 7, 8.

M. two + A. none = two.

Orientation. Entrance from the South.

M. 4, 5, 6. A. 1, 2, 3.

M. three + A. three = six.

Orientation. Entrance from the East.

A. 4.

M. none + A. one = one.

Orientation. Entrance from the West.

M. 1, 2, 3, 9, 10, 11, 12, 13 (?), 14, 15 (?), 16, 17.

M. ten (? twelve) + A. none = ten (? twelve).

Single tombs.

M. 3, 4. A. 1, 4.

M. two + A. two = four.

Pairs of tombs.

M. 1-2, 5-6, 7-8, 16-17. A. 2-3.

M. four pairs + A. one pair = five pairs.

Groups of tombs.

M. 9-15.

M. one group of seven tombs. A. none.

Very little help is given by this tabulation, particularly since the smallness of the Astividhero group makes it nearly useless as a criterion. Wholly and partially free-standing tombs are equally popular, except at Astividhero. The long dromos and the simple entrance are nearly equal in number. The projecting entrance is principally confined to the one big group M. 9-15. The rectangular base is much more common than the circular, though, since they both occur in one pair—M. 5 and 6—they are obviously no criterion of date. The direction of the tomb is almost always at right angles to the hillside; where it is parallel to it, it is always for the purpose of including a long dromos. There was clearly no principle in the orientation. The fact that most of the tombs at Ta Mnemata are entered from the west and those at Astividhero from the south is obviously due to the direction of the hillside on which they were built. Single tombs are rare and pairs common. Whether M. 9-15 is really a group or an aggregate of single tombs is open to question.

In short, there is no criterion of date to be obtained from these features, since practically any of them may occur in one and the same tomb. As we shall see, also, the finds have little help to give us.

As a group, however, they are extremely interesting. Tholoi of this period have been found elsewhere. Erganos, Panagia, Phrate and Sidhero are all on the western and north-western slopes of Lasithi.¹ Anavlokhos is to the north-east.² In east Crete are Braimiana, Kavousi, Moulia, Praisos and Vrokastro.³ Away in south Crete are Kamarais and Kourtais.⁴ Now that we know that the 'fringed style' of decoration continued into this period (see below, p. 138), we can probably include the tholoi at Agios Theodoros, near Vasilike, and Plate, in the plain of Lasithi itself.⁵ In all these cases, however, the tholoi were of the ordinary type—i.e., below ground. Some are rectangular and some circular at the base, but none projects above the surface. The idea of a free-standing tholos is absolutely new, and, as far as one can see, absolutely peculiar to Karphi. The fact that they were free-standing allowed the builders to utilise comparatively flat ground, and did away with the necessity for keeping the tomb at right angles to the hillside. Again, it meant that it was far easier to remove the capstone than to unblock the dromos and entrance for each secondary interment.⁶ The entrance therefore fell into immediate disuse: it survived as a pure tradition, as did the blocked dromos only one course high, of the days when a chamber tomb or ordinary tholos had to be unblocked for every burial. The presence inside the vaults of stones too big to have been introduced through the door is probably to be explained by the fact that they too were part of the formal blocking. It is possible that, when the tombs had fallen into disuse and the method of their construction had been forgotten, the entrances were still visible, and seemed the most hopeful method of ingress for tomb-robbers who succeeded in pushing these blocks back from their proper position. It is clear that they soon learned their trade, for in very few cases was this done, and perhaps in some these stones were rolled aside in the hope of finding further loot after entry had been made through the roof.

One other possibility must be borne in mind. The dead are apt to leave their tombs, sometimes in Greece in their very bodies. An obvious exit, heavily blocked, might keep the dead man busier for much longer than the mere raising of the capstone, which, had he known it, was far the easier task.

Several methods of interment in the tomb seem to have been used. Unfortunately, successive burials as well as tomb-robbers have in all cases

¹ *AJA* 1901 p. 270; *ibid.* p. 283 and *Annuario* X-XII 389; *ibid.* p. 174; *Mon. Ant.* IX 402.

² *BCH* 1931 365 ff.

³ *JHS* 1932 p. 255; *AJA* 1901 p. 125; 1904 p. 21; *BSA* VIII 240; *Vrokastro passim*.

⁴ *AJA* 1901 p. 437; *ibid.* p. 287.

⁵ *Trans. Penn. Univ.* II p. 129; *BSA* XX 14. Note that none of the above sites are in districts where the true 'Protogeometric' pottery flourished.

⁶ Cf. Kourtais, *loc. cit.*, where this was the practice even though the tomb was buried.

completely scattered the bones. The most common method was a simple interment, the body lying in peace until the tomb was opened for the next burial. Remains of a larnax were found in M. 1, and the pithos in A. 4 must also almost certainly have contained a body. All these forms of burial are well known throughout Minoan history, and the first two survive elsewhere into this period.

With regard to the objects found in the tombs, there is one most important observation to be made. There is a widespread impression—whether it has appeared in print or not we do not know—that certain classes of objects, particularly certain shapes of vases, are peculiar to tombs, while others are peculiar to settlements. In refutation of this it is possible to say that on this site practically every single type of object found in the tombs has been found in the settlement, and *vice versa*. The exceptions to the rule, such as kalathoi, which have not yet been found in a tomb, are clearly pure chance. Even the deep bowls or kraters which are so confidently claimed as being purely ‘settlement furniture’ are found in the cemetery.

A discussion of the human and animal remains will be given in a later article.

V. THE OBJECTS.

1. *Metal-Work.*

Bronze, iron and lead are all represented at Karphi, bronze being especially plentiful and giving evidence of some skill in workmanship. The complete absence of the more precious metals is easily explained, since there is no sign of violent destruction,¹ and in the event of a peaceful desertion the inhabitants would naturally take with them whatever gold or silver they possessed. The same explanation may apply to the very small quantity of iron found in the city. Implements of the recently-introduced metal would obviously be too valuable to be left behind. The tombs were probably despoiled of most of their original contents at an early date, and it is possible that later burials gave the occasion for much of this spoliation.

I. *Bronze.* A fairly wide range of tools and weapons and a number of miscellaneous objects were found mainly in the city, whilst small ornaments were equally distributed between the city and the tombs. At this date it seems that the fashion in objects of personal adornment was undergoing a change, due in great part to the introduction of a new style of dress. Many of the implements, however, are little different from those of earlier times. All the objects are in remarkably good condition, since

¹ See p. 136. It should also be remembered that, from the nature of the circumstances, Karphi was not a rich city.

the soil of Karphi, so disastrous in its effect on the painted pottery, seems to contain properties peculiarly favourable to the preservation of bronze.

Several plain rings were found both in the city and the tombs. Eight (159, 160, 177, 222, 268, 307, 392, 646) are formed of a narrow band of bronze with one end pushed through the other and flattened out. The other seven (161, 308, 367, 481, 505, 554, 679) are of bronze wire. Rings of this type were found in the town and tombs of Vrokastro¹ and at Kavousi.²

A ring with a somewhat broader band and a plain oval bezel at right angles to the hoop (439) was found in the City. This is a shape characteristic of the Sub-Minoan and Proto-Geometric periods elsewhere, and similar rings of gold were found at Mouliana,³ at Praisos,⁴ and in the Korakovilia tomb at Vrokastro.⁵

Spiral rings of bronze wire (162, 163, 164, 390) from the tombs are too small for finger-rings, and may have served as ornaments for the hair.

A drop-pendant (539) from 106, probably an earring, consists of a small pear-shaped piece of bronze mounted on a split ring.

Metal discs were a favourite ornament at this period and were probably attached to the clothes. A number of small hollow discs (169) from M. 8 are each fitted with two clips on the inside for this purpose; from the position in which they were discovered it seems that they formed triple or quadruple bands round the border of some garment. Two plain discs (183, 184) were found in M. 7, and of the four specimens from the city, one (249) is plain, another (252) is decorated with small bosses around the circumference⁶ and the other two (262, 419) are hollow, but lack the clips on the inside. A disc of this type from Vrokastro⁷ has two holes near the edge to allow of its being sewn to the clothing. Such discs occurred also at Mouliana⁸ and at the Diktaian Cave,⁹ where Hogarth described them tentatively as 'miniature shields,' but suggested that they may have belonged to pins or clasps. A more elaborate example in the form of a golden rosette with thread-holes was found at Praisos.¹⁰

The fibula which appeared in the Aegean area towards the end of the Bronze Age was not common in Crete until the Early Iron Age, when its appearance at Karphi proves that the inhabitants dressed in a Non-Minoan style. This style was probably of Northern origin¹¹ and may perhaps be associated with the Achaeans. Both the plate fibula, the earliest known type,¹² and the slightly later bow fibula are represented

¹ Vrokastro Fig. 70 B.C. and Fig. 87 C.F.

² *AJA* 1901 p. 136 Fig. 3.

³ *Ep. Apx.* 1904 p. 37 Fig. 8.

⁴ *BSA* VIII p. 248 Fig. 16.

⁵ Vrokastro Fig. 82.

⁶ For a larger version of this with a central boss cf. Vrokastro Fig. 58 M.

⁷ *Op. cit.* Fig. 85 N.

⁸ *Ep. Apx.* 1904 p. 45 Fig. 11.

⁹ *BSA* VI 109 Fig. 41.

¹⁰ *Ibid.* VIII p. 243 Fig. 12.

¹¹ Lamb *Greek and Roman Bronzes* p. 31.

¹² Blinkenberg *Fibules Grecques et Orientales*, pp. 44-5.

here. Two decorated examples of the former (200, 636) come from the Eastern Block and a small fragment (219) was found in the Great House. One (200) consists of the spring and part of the leaf-shaped plate with an incised pattern of dots and herring-bone lines.¹ The other (636) has hook and plate, the latter with a border of small dots. This type occurs both at Vrokastro² and at the Diktaian Cave.³

The safety-pin variety, where the leaf-shaped plate has disappeared but has not yet given place to the semi-circular hoop of the bow fibula, may be regarded as transitional.⁴ A single fibula of this type with a twisted bar (690) was found on Mikre Koprana.

The bow fibula, which Blinkenberg describes⁵ as characteristic of the very early Iron Age, is more usual than the earlier type at Karphi. Two examples (157, 158) were found with numerous other bronze objects in M. 8, the largest and richest of the tombs. Two more (175, 176) came from M. 4 and two fragments (382, 393) from M. 11 and M. 17. Three other fragments (422, 477, 546) were found in the city. Of these, two (477, 546) have a twisted hoop. This shape, with a more or less curved bow, which may be either plain or twisted, seems to have been in great favour over a wide area⁶ and the evidence from Karphi resembles very closely that from Vrokastro.⁷ At both sites the early plate fibula is comparatively rare, whilst the bow fibula is common and was made in iron⁸ as well as in bronze.

Later types, such as the knobbed fibula and the fibula with a large catch-plate, characteristic of the Proto-Geometric and Geometric periods,⁹ are not represented at Karphi, either because the city had already been deserted before they became really common, or because they were sufficiently new at that time to have been removed with the rest of the owner's more necessary and valuable possessions.¹⁰

Long bronze pins were also used for fastening the dress at this period,¹¹

¹ For the dot pattern *op. cit.* Fig. 20 I 8 b and Fig. 21 I 8 a; for the herring-bone lines *op. cit.* Fig. 19 I 8 a.

² *Vrokastro* p. 113 and Pl. XIX A.

³ *BSA* VI p. 111, and Blinkenberg Fig. 22 I 8 g.

⁴ Blinkenberg p. 46. For an LM III parallel to 690 cf. Blegen *Korakou* Fig. 133, 6.

⁵ Blinkenberg p. 58, where it is classified as Sub-Mycenean.

⁶ For fibulae of this type from the Mainland, the Islands, Italy and the Caucasus cf. *Vrokastro* p. 148.

⁷ Only two examples of the plate fibula were found there. *Op. cit.* pp. 99 and 113 and Pl. XIX A and B, whilst the bow fibula was common. *Op. cit.* Pl. XIX C, D, E, F and Fig. 87 B, I, J. The latter occurs also at Kavousi, *AJA* 1901 p. 136 Fig. 2.

⁸ See p. 121, note 2.

⁹ Lamb *Greek and Roman Bronzes*, pp. 47-8; both types are known at Vrokastro. *Vrokastro* Pl. XX.

¹⁰ It may be noted that a knobbed fibula was found in the Geometric Tomb on the Papoura.

¹¹ Thiersch *Aegina* pp. 404-10.

perhaps as an alternative to the more elaborate fibula. The majority of these are plain rounded pins tapering to a point, though a single example (218) is rectangular in section. Three (378, 379, 380) from M. 9 are plain with a marked swelling at one end, an earlier and simpler form, perhaps, of the pin with knobs and grooves.¹ Another of this type (381) comes from M. 10. Four shorter pins with hooked tops (471, 503 a and b, 565) were found in the city and can be paralleled from the Temenos deposit at the Diktaian Cave.² This type continued in use until the Archaic period.³

A single example from the city (305) has an eye in the slightly widened head, as well as a tapering point, and may be described as a needle. Another needle, with the eye well below the head (171) where the shaft is considerably widened, may perhaps be a later and more developed form ⁴ of 305.

A disc-headed pin with small ridges below the disc (394) was found with the Archaic pottery and figurines at Vitzelovrysis (p. 100) and no doubt belongs to the same period. This form may have been derived from the earlier knobbed pins. A few specimens were found in the Diktaian Cave.⁵

Seven stylus-shaped rods, all from the city, resemble the longer pins, save that they are not pointed and therefore cannot have been used for fastening the clothes. The majority (499, 551, 564, 574, 589) have a swelling at one end like 378-81, whilst one (495) is rectangular in section and another (522) is short and thick. Two more rods were found in the tombs, one (166) from M. 8 has a curved and flattened end and two fragments of another (182 a and b) from M. 3 suggest a rod of considerable length with a swelling at one end. The purpose of these implements is uncertain.

Small awls are pointed at one end and either rounded with a flat tang (276) or cylindrical bone handle ⁶ (251), or else rectangular (258, 420) with a small tang. One of these (258) is curved like a sickle.

Saws have little teeth along one edge. One example (215) is curved and a fragment of another (237) is oblong in shape, resembling a bronze saw from Mouliana.⁷

There are two small chisels (216, 411), both rectangular, with a wide flattened end. In both cases only the blade remains.

One very well-made tool (670) is circular in section and seems, by

¹ *Vrokastro* p. 144 for a parallel to 378-80 cf. Fig. 87 K.

² *BSA* VI Fig. 45 no. 3 in lower row.

³ A close parallel occurs in an Archaic tomb on Thera. *Thera* II Fig. 490 a.

⁴ Both these needles have counterparts in the Diktaian Cave, *BSA* VI Fig. 45, 4 and 5 in lower row.

⁵ *Op. cit.* Fig. 45 nos. 1-5 in top row.

⁶ See p. 128 for a similar handle.

⁷ *Εφ. Αρχ.* 1904 pp. 29-30 Fig. 7.

reason of the flat diamond-shaped blade, to have been used as an engraver. Above the blade, where the handle begins to thicken, there is a pattern of parallel chevrons enclosed by rings.

Another remarkable tool, likewise extremely well-preserved, is a large adze with a flattened blade (455) and two knobs where the handle first widens out towards it. Here a simple incised linear pattern decorates the top of the blade.

Tweezers (306, 456), made from a flat piece of bronze doubled over and pressed together below the head, were still in use and seem to have changed little from the time of their earliest appearance.¹

The razor, another very ordinary implement, is represented by a single example (510) with a short thin blade and a very long handle. A rather similar razor with a curved handle was found in the Temenos deposit at the Diktaian Cave.²

Several knives of varying shapes were found in the city. The ordinary single-edged type are for the most part fragmentary, but the only two whole specimens (518, 548) have a long tang with three rivet-holes for attaching a handle of wood or bone.³ 518 is a particularly fine example. Knives of similar shape are common at this period.⁴ Five other knives have curved blades⁵ less tapered than the blade of 518. One of these (267) has a tang with two rivet-holes, another (448) is a 'cutting-out knife' with a similar tang, a third (450) consists only of the blade, and the other two (497, 508) have each two rivet-holes near the top of the blade.

Small knives with a fine tapering blade have twisted handles bent over to form a hook at the top. One (540) is very much curved, another (645) has a long handle and a small blade, whilst the blade of the third (687) is leaf-shaped. Like the razor they may have been connected with the toilet, since the blades are almost too fine for any other use.

Sickles are on the whole larger and more curved than the knives.⁶ The two examples from Karphi (213, 232) have a single rivet-hole near the top of the blade, showing where the handle was attached.

Daggers differ slightly from the knives and sickles, being double-edged and intended for thrusting rather than cutting. One (214) with a tapering blade has traces of a rivet-hole where the tang is broken. A

¹ Tweezers of this type appear first in the Early Bronze Age. Goldman *Eutresis* Fig. 286, 3 and Blegen *Zygouries* Pl. XX 19. They were still in use at Karphi and in the Diktaian Cave *BSA* VI p. 111 Fig. 45 No. 1 in lower row.

² *BSA* VI p. 111 Fig. 45 No. 6 in lower row.

³ For bone handles of knives, etc., see p. 128.

⁴ At Vrokastro. *Vrokastro* Pl. XXI A is of iron and the Diktaian Cave. *BSA* VI p. 110 Fig. 43 No. 2 of bronze.

⁵ *Vrokastro* Pl. XXI I for a parallel.

⁶ Blegen *Zygouries* Fig. 190, 2 shows a sickle of this type not unlike 213.

fragment consisting of the hilt and flanges of a larger dagger (250) has three bronze nails in the hilt and two holes for similar nails in the flanges. This shape is associated with both daggers and swords¹ and must originally have had a hilt of bone or wood. A third fragment (358) belongs to the tang of a small dagger with two rivet-holes.

Part of a very fine bronze sword of considerable size (500) from the centre of the blade has the plain slightly curving surface which is characteristic of the period.²

A leaf-shaped spear-head with prominent midrib (550) ends in a small rectangular tang evidently intended for insertion into a wooden shaft and affords further proof of the survival of early forms. The later method, by which the end of the blade becomes a socket to receive the shaft, though common at Vrokastro,³ is altogether unknown here. Hogarth⁴ describes the spear-head with a socket as an improvement on the spear-head with a flat tang nailed to the shaft, which he regards as characteristic of the Late Bronze Age. The rectangular tang of 550 may, however, have a still earlier origin.⁵

The three arrow-heads (454, 552, 672) are made on the same principle with rectangular tang, midrib, and pointed barbs. In shape they recall the flint and obsidian arrow-heads⁶ which they supplanted when metal became more plentiful and its use more widespread.

Besides the small bronze nails from the hilts of swords or daggers, a larger type of nail was also in use. Two of these (217, 653) are rectangular with a plain flat head, but the hollow round head of a third (673) shows that they were sometimes intended for ornamental purposes, perhaps to decorate the more elaborate household furniture.

For fine metal-work, and in particular for bronze vases, small rivets were used. A single such rivet (238) consists of a short bar with the two ends bent in at right angles for insertion into the holes. This shape is an improvement on the clumsy double rivet of lead used in repairing pottery at an earlier date.⁷

Though bronze vessels, especially tripods, were not uncommon at this period, only a few fragments were found at Karphi. These include an octagonal leg (638) which may have belonged to a metal equivalent of the ordinary clay tripod.⁸ At any rate the short solid leg recalls the early

¹ At Mouliaia *Eφ. Apx.* 1904 pp. 29-30 Fig. 7 and at the Diktaian Cave *BSA* VI p. 110 Fig. 43, 5.

² *Eφ. Apx.* 1904 pp. 29-30 Fig. 7. *Vrokastro* Pl. XXI E.

³ *Vrokastro* Fig. 59.

⁴ *BSA* VI p. 110.

⁵ A rather similar spear-head was found at Phylakopi. *Phylakopi* Pl. XXXVIII 6. There is a contemporary example from Knossos *Prehistoric Tombs at Knossos* Figs. 56, 57.

⁶ For an obsidian arrow-head with very pointed barbs of LM date cf. Goldman *Eutresis* Fig. 280, 13.

⁷ *Phylakopi* Pl. XL 21.

⁸ It should be noted that type 5 in the pottery corpus seems to be derived from a metal prototype.

type of bronze tripod, where the legs adjoin the body, rather than the more elegant Geometric type with graceful and decorative legs adjoining the rim.¹ Three other fragments of bronze vases belong, one (278) to a shallow bowl, another (509) to a rim and a third (572) to part of a bowl with the small rivets still in place.²

Inconsiderable as these fragments are, a very fine plaque (475) illustrates the heights to which the coppersmith's art could rise. It is oblong in shape and may have been used to decorate some wooden object. The pattern, which is very carefully incised, is divided into two rows of three panels each, the panels separated by groups of fine lines and the rows by a hatched band. The first and second pairs of panels have a simple linear design filled in with dots, the third and longest, a series of running spirals fringed with dots. That such detailed work was possible before the end of the Geometric period³ is further proved by a plate fibula from the Diktaian Cave which can hardly be later in date than the Intermediate Period and which Blinkenberg describes as Post-Mycenean but nevertheless of very early date in view of the construction of the spring.⁴ The elaborate design of lines and dots both on this fibula and on 475 can be compared to the 'fringed' patterns on the painted pottery.

Finally there are the two votive double-axes. These were found with a number of other cult-objects, the larger (248) in K. 26, the smaller (555) in K. 106. Both are too small to have been anything but votive-offerings and they provide further evidence for the survival of the Minoan cult at Karphi. 248 is of a curious shape, the two blades narrowing considerably to the centre, which is a small knob. This is undoubtedly a late, perhaps the latest, type of the traditional emblem, and corresponds to the conventionalised double-axe as it sometimes appears on painted pottery of the period.⁵ 555 is a more usual form, of very thin bronze, with the curved blades of the Late Minoan double-axe.⁶ The arrangement for attaching the axe to the shaft by means of two slots is a new feature.

Besides the above-mentioned objects there are many small fragments of bronze from nearly every room in the city.⁷ A detailed description of all the objects included in the catalogue will be found in the sections dealing with the city and the tombs.

¹ Lamb *Greek and Roman Bronzes*, p. 45. For the older type of bronze tripod and tripod legs not unlike 638 cf. *Gournia* Pl. IV 71-2. *BCH* 1931 p. 378 Fig. 16. For the later Geometric type cf. *Vrokastro* Pl. XXIV.

² *Annuario* X-XII p. 343 Fig. 445 and p. 475 Fig. 590 c for similar vases and fragments.

³ For elaborate designs on the catch-plate of Geometric fibulae cf. Lamb *Greek and Roman Bronzes*, pp. 47-9.

⁴ Blinkenberg *Fibules Grecques et Orientales* Fig. 22 I 8 g.

⁵ Hall *Vrokastro* Fig. 98.

⁶ *BSA* VI p. 109 and Fig. 40.

⁷ See section III *passim*.

Rings.

- | | | |
|--------------------------------|---------------------------------|--------------------------------|
| 159. M. 8.
(Pl. XXVIII, 1.) | 268. K. 29.
(Pl. XXIX, 2.) | 505. K. 85.
(Pl. XXIX, 2.) |
| 160. M. 8.
(Pl. XXVIII, 1.) | 307. K. 38.
(Pl. XXIX, 2.) | 554. K. 106.
(Pl. XXIX, 2.) |
| 161. M. 8.
(Pl. XXVIII, 1.) | 308. K. 38. | 646. K. 127.
(Pl. XXIX, 2.) |
| 177. M. 4.
(Pl. XXVIII, 1.) | 367. K. 9. | 679. K. 18.
(Pl. XXIX, 2.) |
| 222. K. 12. | 392. M. 17.
(Pl. XXVIII, 3.) | |
| | 481. K. 82.
(Pl. XXIX, 2.) | |

Finger-Ring.

439. K. 68. (Pl. XXIX, 2.)

Spiral Hair-rings.

- | | | |
|--------------------------------|--------------------------------|---------------------------------|
| 162. M. 8.
(Pl. XXVIII, 1.) | 164. M. 8.
(Pl. XXVIII, 1.) | 390. M. 13.
(Pl. XXVIII, 3.) |
| 163. M. 8.
(Pl. XXVIII, 1.) | | |

Earring.

539. K. 106. (Pl. XXIX, 1.)

Discs.

- | | | |
|--------------------------------|--------------------------------|----------------------------|
| 169. M. 8. | 184. M. 7.
(Pl. XXVIII, 1.) | 252. K. 26. |
| 183. M. 7.
(Pl. XXVIII, 1.) | 249. K. 26. | 265. K. 29. (Pl. XXIX, 1.) |
| | | 419. K. 62. (Pl. XXIX, 1.) |

Fibulae.

- | | | |
|--------------------------------|---|--------------------------------|
| 157. M. 8.
(Pl. XXVIII, 1.) | 200. Slopes of Mikre
Koprana (bought).
(Pl. XXIX, 2.) | 422. K. 63. (Pl. XXIX, 2.) |
| 158. M. 8.
(Pl. XXVIII, 1.) | 219. K. 12. | 474. K. 81. (Pl. XXIX, 2.) |
| 175. M. 4.
(Pl. XXVIII, 1.) | 382. M. 11.
(Pl. XXVIII, 3.) | 546. K. 108.
(Pl. XXIX, 2.) |
| 176. M. 4.
(Pl. XXVIII, 1.) | 393. M. 17.
(Pl. XXVIII, 3.) | 636. K. 136.
(Pl. XXIX, 2.) |
| | | 690. K. 147.
(Pl. XXIX, 2.) |

Pins and Needles.

- | | | |
|--------------------------------|---------------------------------|--|
| 100. M. 1.
(Pl. XXVIII, 1.) | 379. M. 9.
(Pl. XXVIII, 3.) | 471. Surface of K. 91.
(Pl. XXIX, 2.) |
| 171. M. 4.
(Pl. XXVIII, 1.) | 380. M. 9.
(Pl. XXVIII, 3.) | 503 a and b. K. 79.
(Pl. XXIX, 2.) |
| 207. K. 3. | 381. M. 10.
(Pl. XXVIII, 3.) | 565. K. 109.
(Pl. XXIX, 2.) |
| 218. K. 12. | 388. M. 13.
(Pl. XXVIII, 3.) | 593. K. 122. |
| 305. K. 36. | 389. M. 13.
(Pl. XXVIII, 3.) | 594. K. 122. |
| 378. M. 9.
(Pl. XXVIII, 3.) | | |

Later Pin.

394. Vitzelovrysis Sanctuary.

Stylus-shaped Rods.

495. K. 77.

499. K. 78.

522. K. 67.

551. K. 115.

564. K. 109.

574. K. 104.

589. K. 124.

Miscellaneous Rods.

166. M. 8.

(Pl. XXVIII, 1.)

182 a and b. M. 3.

(Pl. XXVIII, 1.)

Awls.

236. K. 17. (Pl. XXIX, 1.)

251. K. 26. (Pl. XXIX, 1.)

258. K. 40. (Pl. XXIX, 1.)

420. K. 62.

Saws.

215. K. 12.

237. K. 17.

Chisels.

216. K. 12.

(Pl. XXVIII, 2.)

411. K. 55.

(Pl. XXVIII, 2.)

Engraver.

670. K. Peak Sanctuary.

(Pl. XXIX, 1.)

Adze.

455. K. 76. (Pl. XXIX, 2.)

Tweezers.

306. K. 38. (Pl. XXIX, 2.)

456. K. 76. (Pl. XXIX, 1.)

Razor.

510. K. 32. (Pl. XXVIII, 2.)

Single-edged Knives.

197. K. 148.

230. K. 17.

298. K. 31.

518. K. 97.

(Pl. XXVIII, 2.)

525. K. 110.

548. K. 112.

(Pl. XXVIII, 2.)

598. K. 121.

654. K. 137.

669. K. Peak Sanctuary.

671. K. Peak Sanctuary.

Curved Knives.

267. K. 29.

448. K. 69.

(Pl. XXVIII, 2.)

450. K. 72.

(Pl. XXVIII, 2.)

497. K. 88.

(Pl. XXVIII, 2.)

508. K. 32.

(Pl. XXVIII, 2.)

Knives with Twisted Handles.

540. K. 106.

(Pl. XXVIII, 2.)

645. K. 127.

(Pl. XXVIII, 2.)

687. K. 147.

(Pl. XXVIII, 2.)

Sickles.

213. K. 12. (Pl. XXVIII, 2.) 232. K. 17. (Pl. XXVIII, 2.)

Daggers.

214. K. 12. (Pl. XXVIII, 2.) 250. K. 26. (Pl. XXIX, 1.) 358. K. 54.

Sword.

500. K. 96. (Pl. XXIX, 2.)

Spear-head.

550. K. 114. (Pl. XXIX, 1.)

Arrow-heads.

454. K. 75. (Pl. XXIX, 1.) 672. K. Peak Sanctuary.
552. K. 115. (Pl. XXIX, 1.) (Pl. XXIX, 1.)

Nails.

217. K. 12. 673. K. Peak Sanctuary.
653. K. 127. (Pl. XXIX, 1.) (Pl. XXIX, 1.)

Rivets.

238. K. 17.

Tripod Leg.

638. K. 137. (Pl. XXIX, 2.)

Vases.

278. K. 23. Floor. 509. K. 32. 578. K. 108.

Plaque.

475. K. 81. (Pl. XXIX, 1.)

Double Axes.

248. K. 26. (Pl. XXIX, 1.) 555. K. 106. (Pl. XXIX, 1.)

II. *Iron.* Iron was certainly known to the inhabitants of Karphi, though the scarcity of this metal in the City is natural, as tools and weapons would be among the objects removed when the site was abandoned. Only in the Tombs a few larger fragments remained. This situation presents a marked contrast to the prevalence of iron in the town and tombs of Vrokastro, which survived into the Geometric period.

Two pieces of a rectangular iron nail (178) were found in M. 4, whilst fragments of a blade¹ (383) and two more (384) belonging to a bow fibula² come from M. 11. The City produced only two small fragments

¹ This blade probably belonged to a small knife of the type of 448 or 518. Cf. *Vrokastro* Pl. XXI A-I for iron knives from Vrokastro.

² *Op. cit.* Pl. XIX D for an iron fibula of similar type.

(449, 498) from K. 69 and K. 88. Two objects, probably of later date, were found in the earth outside M. 8. One (167) is the top of a needle with a large eye. Here the flat surface is pierced near the head without being widened like the bronze needles 171 and 305. The other (168) is part of the curved iron handle of a small implement, perhaps a knife or a sickle. It seems possible that these may belong to a considerably later period when the Vitzelovrysis Sanctuary was an object of local pilgrimage.

178. M. 4.	384. M. 11.	449. K. 69.
(Pl. XXVIII, 1.)	(Pl. XXVIII, 3.)	498. K. 88.
383. M. 11.		
(Pl. XXVIII, 3.)		

Later Objects.

167. M. 8. Outside.

168. M. 8. Outside.

III. *Lead.* This metal is found in small quantities at the majority of prehistoric sites in the Aegean area. Here it is represented by a single object, a small ferrule (372) from M. 11 which may have belonged to a staff with a wooden shaft, and by four fragments, too small for identification, from the city.

372. M. 11.

Fragments.

221. K. 12.
647. K. 127.

667. K. Peak Sanctuary. 668. K. Peak Sanctuary.

2. *Stone-Work.*

Fine stone-work was comparatively rare at this period and, though stone vases were still made by the inhabitants of Karphi, the best specimens should be assigned to a date long before the foundation of the city. The more ordinary stone implements, particularly such objects of daily domestic use as pounders and whetstones, were found in almost every room but were absent, as might be expected, from the Tombs.

I. *Stone Vases.* Several of these are very similar both in material and shape to the EM III and MM I vases from the Cave of Trapeza. Either they were family heirlooms of considerable antiquity, brought to Karphi when their owners took to the hills, or else they must have been among the finds of an early looting expedition, possibly to the Cave itself.

One fragment (580) belonged to an open-spouted bowl of the type which occurs at Trapeza¹ and is known both at Mokhlos and in the Messara in EM II-EM III.² This specimen can be dated to EM III by the material, a soft brownish steatite.³

¹ BSA XXXVI p. 110 Fig. 23, 17.

² Mokhlos Fig. 18 IV 4 and 5; VTM Pl. XXII 726 and Pl. XXXVIII 1080, 1084.

³ Mokhlos p. 101.

A grey-speckled steatite bowl (185) of the 'mustard-pot' type with a distinct base and slightly offset lip, has the curving profile unknown before MM I when it is found at Trapeza¹ and, with variations, in East and South Crete.²

Two fragments of the same stone belong, one (209) to a cup with a vertical strap-handle, a shape which appears in an EM III-MM I context in the Messara,³ the other (441) to a small carinated bowl with a plain base.

A carinated bowl of grey steatite (530) with a plain base and sloping rim contained a single obsidian blade. With this was found a knobbed lid of the same material. Both bowl and lid are characteristic⁴ of MM I, and there are very close parallels from Mokhlos⁵ and Arvi,⁶ whilst a similar lid is associated with a bowl resembling 185 from Trapeza.⁷

Another familiar MM I shape is represented by the base of a straight-sided cup of black steatite (533). Cups of this type with quite straight or very slightly curved sides occurred both at Trapeza⁸ and on the Kastellos⁹ and are common wherever stone vases of this date are found.¹⁰

There is also a fragment of grey steatite (634) belonging to a carinated bowl of the type of 441 and 530, as well as another small knobbed lid (683) exactly similar to the lid of 530.

Besides these survivals from an earlier period there are a few vases and lids which appear to be of contemporary date. An unfinished bowl of black limestone (127) shows how a small central hole was drilled into the solid lump of stone. There is also a fragment of a round bowl of grey steatite (299) which illustrates the result of this method and provides a striking example of the thick walls and small aperture characteristic of Cretan stone-cutting in its decadence.¹¹ An open bowl of black steatite (600) with a straight base and a single groove below the rim also belongs to the Intermediate Period,¹² though the walls are not as thick as those of 299. Here the irregular undefined shape is in marked contrast to the careful technique and elaborate forms of the Early and Middle Minoan stone-work.

Half a large knobbed lid of grey steatite (372) is so much like the

¹ BSA XXXVI p. 112 Fig. 24, 21.

² Mochlos Fig. 28 XI 2 and Evans *Ag. Onuphrios Deposit* Fig. 109 and to a less extent Figs. 110 and 119.

³ VTM Pl. XXXIX 1064 and Pl. LIV 1884.

⁴ Mochlos pp. 38-9.

⁵ *Op. cit.* Fig. 28 XI 10.

⁶ Evans *Ag. Onuphrios Deposit* Fig. 117 for a parallel from Arvi.

⁷ BSA XXXVI p. 112 Fig. 24, 21 a and also at Arvi. Evans *op. cit.* Fig. 109.

⁸ BSA XXXVI p. 42 Fig. 24, 23.

⁹ See p. 49.

¹⁰ Mochlos Fig. 32 XX 3; VTM Pl. XXIX 1062.

¹¹ Vrokastro p. 114.

¹² A somewhat similar bowl from the late deposit at the Diktaian Cave is described in BSA VI p. 114.

clay lids of the period ¹ that it must be contemporary with them, whilst another lid (621) is a simple circular disc of grey speckled steatite (621). Further, there are a number of roughly-cut discs of steatite or schist, for the most part singly or doubly pierced, which probably served as lids ² for small clay vessels and could be affixed by means of a string threaded through the holes.

Early Minoan III.

580. K. 124. (Pl. XXX, 1.)

Middle Minoan I.

185. K. 149. (Pl. XXX, 1.)	530. K. 110. (Pl. XXX, 1.)	634. K. 136.
209. K. 6. (Pl. XXX, 1.)	533. K. 79.	683. K. 147.
441. K. 69.		

Intermediate Period.

127. Bought.	600. K. 70. (Pl. XXX, 1.)	621. K. 132. (Pl. XXX, 4.)
299. K. 31.	377. K. 149.	

Discs Used as Lids. Intermediate Period.

273. K. 39. (Pl. XXX, 4.)	582. K. 124.	651. K. 124.
304. K. 34. (Pl. XXX, 4.)	608. K. 106.	656. K. 141.
512. K. 85.	612. K. 118.	680. K. 143.
532. K. 110. (Pl. XXX, 4.)	649. K. 121.	686. K. 147.
581. K. 124.		

II. *Stone Implements.* A considerable number of stone tools were found in the City. The most common are large limestone pounders or rubbers, many of which are merely unworked stones of suitable shape. One curious pounder (440) is somewhat like a modern flat-iron and both hour-glass shaped (339, 579) and four-sided (112, 610) examples are known, though by far the majority are ordinary round stones.

Three cylindrical limestone pestles (122, 426, 434) are of a type adapted for use in a small mortar and one flat piece of limestone (128) probably belonged to an oblong palette, not unlike the earlier palettes from the Messara in shape.³

Several small objects of slate, long, narrow and generally pierced at one end, may have served as whetstones. These can be paralleled at Vrokastro ⁴ and are reminiscent of similar implements from the Early Minoan period.⁵ They were probably suspended round the neck so as to be easily available, for small bronze knives must have needed constant sharpening.

¹ Type 1 in the pottery corpus.

² Vrokastro p. 139.

³ VTM Pl. XXI 1035. For a clay palette of similar shape see p. 131.

⁴ Hall Vrokastro Fig. 70 H and Fig. 87 A.

⁵ Similar whetstones were found in the Messara, VTM Pl. XXIII 787-8. The resemblance to 529 is especially marked.

A single fragment of a pointed steatite tool (223) may perhaps have formed part of a small stone adze or chisel.

Finally there are eleven stone axes, both the short type with a straight edge (284, 285, 286, 292, 297, 464, 466) and the longer and more curved type (288, 465, 567, 629). These are usually associated with the Neolithic period¹ but seem to have continued in use throughout the Bronze Age.²

Pounders and Rubbers.

111. K. 1.	339. K. 44.	575. K. 107. (Pl. XXX, 3.)
112. K. 1.	368. K. 17.	579. K. 124.
113. K. 1.	440. K. 69. (Pl. XXX, 1.)	607. K. 116.
114. K. 1.	528. K. 110.	610. K. 100. (Pl. XXX, 1.)

Pestles.

122. Bought.	426. K. 70. (Pl. XXX 1.)	434. Surface. K. 66-68.
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Palette.

128. Bought.

Whetstones.

195. K. 148. (Pl. XXX, 3.)	604. K. 113.	630. K. 120. (Pl. XXX, 3.)
354. K. 48. (Pl. XXX, 3.)	614. K. 89.	648. K. 127. (Pl. XXX, 3.)
360. K. 55. (Pl. XXX, 3.)	615. K. 7. (Pl. XXX, 3.)	655. K. 137.
519. K. 97.	623. K. 132.	674. K. Peak Sanctuary.
529. K. 110. (Pl. XXX, 3.)	627. K. 116. (Pl. XXX, 3.)	697. K. 150. (Pl. XXX, 3.)
595. K. 121.		

Pointed Instrument.

223. K. 14.

Neolithic Stone Axes.

284. Floor deposit of K. 23. (Pl. XXX, 2.)	288. K. 24. (Pl. XXX, 2.)	465. K. 90. (Pl. XXX, 2.)
	292. K. 29. (Pl. XXX, 2.)	466. K. 90. (Pl. XXX, 2.)
285. Floor deposit of K. 23. (Pl. XXX, 2.)	297. K. 31. (Pl. XXX, 2.)	567. K. 109.
	464. K. 81. (Pl. XXX, 2.)	629. K. 120. (Pl. XXX, 2.)
286. Floor deposit of K. 23. (Pl. XXX, 2.)		

III. *Miscellaneous Objects of Stone.* The purpose for which many of these were intended remains uncertain. Conical objects of haematite, limestone and steatite (256, 261, 591) may have been used as weights.

Small plaques and discs with one or two thread-holes were probably pendants of the type found at Vrokastro³ and Emparos.⁴ Two are square

¹ *P of M* Fig. 15 a 1, 2, 3.

² *Gournia* p. 31. Celts of the type of 465, in particular, are common to all periods. Long celts resembling this example correspond to Wace and Thompson's type A, *Prehistoric Thessaly* p. 24.

³ *Vrokastro* Fig. 23.

⁴ *AJA* 1901 p. 282 Fig. 8.

plaques, doubly pierced, the one (196) of steatite with roughly-incised linear markings, the other (260) of mother-of-pearl. The rest (188, 272, 344) are round discs of limestone, slate and steatite, singly pierced.

Three large discs are best described as spools. One of these (458) is unpierced. Of the other two (438, 541), which are both pierced, 438—a green steatite disc—is inscribed on one side with roughly-cut linear signs which suggest a debased form of the Minoan script. A rather similar inscribed steatite object of triangular shape with a single vertical thread-hole is known to come from Central Crete.¹ Here the linear signs on one face² bear a certain resemblance to those on 438. If, therefore, the two objects are contemporary, they may perhaps illustrate the final and degenerate form of the Minoan lettering, carelessly cut by an unskilled hand. The same explanation³ may also apply to the markings on the stone pendant 196.

If this is so, then these examples must represent a stage before the introduction of the new Greek script, when the Minoan characters had lost much of their original significance and it may be doubted whether the engraver had any clear idea of their meaning. Perhaps they were merely used for decorative or talismanic purposes and appealed to a more or less illiterate people by reason of their traditional associations.⁴

Among the various fragments of stone found at Karphi, two semi-circular pieces of steatite (254, 459) have a certain resemblance to Egyptian inlays, but there is no direct evidence for decoration of this sort in any of the rooms of the City.

Weights.

256. K. 40. (Pl. XXX, 1.) 261. K. 41. 591. K. 122.

Pendants.

188. K. 148. 260. K. 40. (Pl. XXX, 4.) 344. K. 49. (Pl. XXX, 4.)
196. K. 148. (Pl. XXX, 4.) 272. K. 39. (Pl. XXX, 4.)

Spools.

438. K. 68. (Pl. XXX, 4.) 458. K. 80. (Pl. XXX, 4.) 541. K. 100.

¹ *Cretan Pictographs* pp. 16–17 Figs. 17 *a* and *b*. This was described as having been found on the Papoura. It is in fact highly probable that it came from Karphi itself.

² *Op. cit.* Fig. 17 *a*.

³ Rather similar characters on a pendant from Arvi *op. cit.* p. 16 can be identified as a form of the letter derived from the bull's-head sign. The linear markings on 196 might perhaps be related to the four-pointed character derived from a human hand. Nos. 6 and 9 respectively in the table of linear signs, *P of M* III.

⁴ At this period the old script may have survived only as a memory. A rather similar state of affairs seems to be reflected in the *Iliad* where the *σήματα λυγρά* carried by Bellerophon *Iliad* 6, 168, suggest an acquaintance with the art of writing without any real knowledge of it.

Fragments of Stone.

211. K. 11.	386. M. 11.	436. K. 57.
254. K. 26. (Pl. XXX, 3).	435. K. 67.	459. K. 80. (Pl. XXX, 3.)
269. K. 29.		

IV. *Obsidian.* The increasing use of sharp-edged metal tools and weapons must account for the scarcity of obsidian at this period. The whole site yielded only two blades (205, 531), one of which (531) was found inside a stone bowl of MM I date,¹ one small core (432) and a triangular chip (309). This is all of the black Melian variety, but it is clear that the obsidian trade cannot have survived much longer.

205. Outside K. 1.	432. K. 75.	531. K. 110. (Pl. XXX, 1.)
309. K. 38.		

3. *Bone.*

A number of bone objects were found in the city and the tombs. All are in fairly good condition.

I. *Pins.* These are for the most part fragmentary. One (371) from K. 7 is pointed at both ends, but the majority have a single point and a decorated head. This decoration generally takes the form of four incised rings (585, 660, 662, 663), or else of two or three carved knobs (476, 483, 521, 576). Pins with very similar decorated heads were found in the Temenos deposit at the Diktaian Cave,² but the technique is of much earlier origin and first became usual at the beginning of the Middle Bronze Age.³

266. K. 29.	521. K. 67.	588. K. 124.
371. K. 7.	(Pl. XXVIII, 4.)	(Pl. XXVIII, 4.)
476. K. 81.	562. K. 109.	603. K. 120.
(Pl. XXVIII, 4.)	566. K. 109.	(Pl. XXVIII, 4.)
477. K. 81.	576. K. 108.	660. K. 143.
478. K. 82.	(Pl. XXVIII, 4.)	(Pl. XXVIII, 4.)
483. K. 83.	585. K. 124.	661. K. 143.
(Pl. XXVIII, 4.)	(Pl. XXVIII, 4.)	(Pl. XXVIII, 4.)
486. K. 75.	586. K. 124.	662. K. 143.
490. K. 76.	(Pl. XXVIII, 4.)	(Pl. XXVIII, 4.)
(Pl. XXVIII, 4.)	587. K. 124.	663. K. 143.
494. K. 77.	(Pl. XXVIII, 4.)	(Pl. XXVIII, 4.)
(Pl. XXVIII, 4.)		664. K. 143.

II. *Miscellaneous Tools and Objects.* There are a few small bone objects the use of which is not clearly apparent. These include a small fragment (105) from M. 2, a flat piece of bone (349) and a worked lump (678).

¹ 530 see p. 123.

² BSA VI p. 113 Fig. 48.

³ Goldman *Eutresis* Fig. 284, 10; Blegen *Korakou* Fig. 130.

Three fragmentary pointed implements (352, 542, 543) resemble the bone awls or punchers which are common at most sites from the beginning of the Bronze Age.¹

105. M. 2.
349. K. 8-18.

352. K. 52.
542. K. 100. (Pl. XXVIII, 4.)

543. K. 100.

III. *Lids*. Two circular bone discs (289, 535), both pierced, were probably used as lids for small clay vessels like their stone counterparts.²

289. K. 23. Floor.

535. K. 83.

IV. *Handles*. The handles of small bronze tools were frequently made of wood,³ and have therefore for the most part perished. Sometimes, however, bone seems to have been used for the same purpose and a few small bone handles were found in the city.

One (312), probably the pommel of a knife, is oblong in shape tapering to the hilt, where there are two holes for the bronze nails. Another fragment of a handle (484) has a single hole, whilst both this and a larger example (524) are of tubular form. Half a small rounded handle (676) may have belonged to a bronze awl, since a similar implement was found with the handle still attached.⁴

312. K. 39.
484. K. 93.

524. K. 110.
(Pl. XXVIII, 4.)

676. K. Peak Sanctuary.
(Pl. XXVIII, 4.)

(Pl. XXVIII, 4.)

V. *Bobbins*. Two small four-sided tubular objects (451, 507), flaring slightly at both ends, presented something of a problem. One (451) is pierced at either end, the other (507) is decorated all over with small incised dots. It seems probable that they were bobbins to hold the thread in weaving. Something very similar is in use at the present day.

451. K. 73.

(Pl. XXVIII, 4.)

507. K. 85.

(Pl. XXVIII, 4.)

4. *Miscellanea*.

Under this heading are grouped all objects which cannot easily be assigned to any particular category, including small objects of various materials such as spindle-whorls and beads.

I. *Spindle Whorls*. The use of these objects is in reality uncertain,⁵ but they are sufficiently alike to be grouped together for the sake of con-

¹ Goldman *Eutresis* Fig. 283, 5. For a similar tool of contemporary date cf. *BSA* VI p. 113 Fig. 48, 7 and 8.

³ For a wooden handle cf. *Vrokastro* Fig. 59 E.

⁴ 251 from K. 26, see p. 115.

² See p. 124.

⁵ Cf. *BSA* XXXVI p. 124.

venience. They are made of clay and stone and the majority are either cylindrical or conical in shape. The cylindrical type are mainly of clay and were often made from the fragments of broken kylix stems.¹ There are seventy of these, and only five of stone. Conical spindle-whorls were even commoner at this period² but these are for the most part of stone. Among seventy-three of this type, one (443) is decorated on the base with linear signs similar to those already observed on the stone pendant 196 and the pierced stone spool 438,³ whilst another (486) has a well-cut compass-drawn rosette which proves that the use of the compass was known even if it was not generally used in the decoration of pottery. There are also twenty-eight conical whorls of clay.

The biconical shape is much less usual. There is a single stone example (391) from M. 14 and the other seven are of clay, one (473) with a pattern of impressed dots. Rarer still is the bell-shaped type of which there are only two specimens (239, 561), both of clay, and the singly-pierced limestone discs (110, 549) which probably served the same purpose.⁴

The average height of the majority of spindle-whorls is *circa* 2.5 cms.

Cylindrical Stone Whorls.

190e. K. 149.	385. M. 11.	635. K. 136.
240. K. 22.	586. K. 109.	

Cylindrical Clay Whorls.

102. M. 1.	277. K. 11.	325. K. 47.
103. M. 1.	281. K. 23. Floor.	326. K. 47.
190a. K. 149.	282. K. 23. Floor.	329. K. 48.
190b. K. 149.	287. K. 23. Floor.	330. K. 48.
190c. K. 149.	291. K. 23. Floor.	331. K. 48.
190d. K. 149.	293. K. 23. Floor.	332. K. 48.
202. K. 1.	294. K. 30.	333. K. 48.
206. K. 3.	296. K. 31.	334. K. 48.
234. K. 17.	301. K. 33.	338. K. 48.
235. K. 17.	302. K. 33.	340. K. 49.
242. K. 24.	310. K. 38.	350. K. 45.
243. K. 24.	313. K. 44.	351. K. 24-28.
244. K. 12.	315. K. 44.	353. K. 52.
255. K. 26.	317. K. 44.	356. K. 56.
256. K. 27.	320. K. 36.	357. K. 54.
270. K. 29.	322. K. 46.	361. K. 56.
276. K. 9.	324. K. 47.	374. K. 55.

¹ This seems to discountenance the idea that they were used as beads, even if they are lighter than the modern spindle whorl.

² *AJA* 1901 p. 286 Fig. 14 and *Vrokastro* Fig. 73.

³ See p. 126 and Evans *Cretan Pictographs* Fig. 17 a and b. These linear signs may represent some form of late inscription.

⁴ *Vrokastro* Fig. 73.

415. K. 58.
493. K. 76.
502. K. 79.
520. K. 52.
544. K. 107.
584. K. 124.
602. K. 120.

605. K. 113.
606. K. 114.
624. K. 116.
625. K. 116.
626. K. 116.
628. K. 108.

652. K. 6.
659. K. 143.
665. K. Peak Sanctuary.
666. K. Peak Sanctuary.
692. K. 147.
693. K. 147.

Conical Stone Whorls.

101. M. 1.
180. A. 1.
189. K. 149.
191. K. 149.
192. K. 149.
193. K. 149.
194. K. 149.
198. K. 149.
199. K. 149.
201. K. 1.
210. K. 10.
231. K. 17.
263. K. 5.
264. K. 6.
274. K. 1.
283. K. 23. Floor.
303. K. 34.
318. K. 44.
319. K. 44.
327. K. 47.
335. K. 48.
343. K. 49.
355. K. 53.
359. K. 54.

373. K. 45.
387. M. 12.
412. K. 56.
418. K. 62.
423. K. 64.
431. K. 61.
433. K. 66-8. Surface.
442. K. 69.
443. Inscribed. K. 69.
444. Unpierced. K. 69.
453. K. 75.
457. K. 77.
460. K. 80.
461. K. 80.
462. K. 80.
470. K. 91.
482. K. 82.
486. Decorated. K. 93.
487. K. 94.
506. K. 35.
527. K. 110.
594. K. 77.
536. K. 83.
563. K. 109.

573. K. 104.
592. K. 122.
596. K. 121.
601. K. 120.
613. K. 92.
617. K. 1.
618. K. 131.
619. K. 133.
622. K. 122.
631. Mikre Koprana.
632. Mikre Koprana.
633. Mikre Koprana.
639. K. 137.
640. K. 127.
641. K. 127.
642. K. 139.
643. K. 139.
658. K. 143.
675. K. Peak Sanctuary.
677. K. Peak Sanctuary.
681. K. 143.
684. K. 147.
696. K. 150.

Conical Clay Whorls.

257. K. 40.
259. K. 40.
271. K. 39.
279. K. 23. Floor.
280. K. 23. Floor.
316. K. 44.
323. K. 46.
362. K. 57.
363. K. 57.
414. K. 58.

424. K. 64.
429. K. 61.
430. K. 61.
432. K. 61. Below floor.
437. K. 67.
445. K. 69.
446. K. 69.
447. K. 69.
468. K. 90.

523. K. 110.
547. K. 111.
572. K. 109.
583. K. 124.
597. K. 121.
656. K. 121.
657. K. 141.
682. K. 143.
691. K. 147.

Biconical Stone Whorl.

391. M. 14.

Biconical Clay Whorls.

212. K. 11.
346. K. 48.
348. K. 56.

364. K. 57.
472. K. 91.

473. Decorated K. 81.
694. K. 147.

Bell-shaped Clay Whorls.

239. K. 22.

561. K. 109.

Disc-shaped Limestone Whorls.

110. K. 1. (Pl. XXX, 4.)

549. K. 113.

II. *Clay Miscellanea.* Besides the above-mentioned spindle whorls, there are a few small objects of clay. An oblong clay palette (186) is not unlike the stone palettes of an earlier date.¹ There are also two loom-weights, one (124) conical in shape and transversely pierced near the top, the other (225) also pierced near the top, but of the rectangular type. Both these weights may be of slightly later date² than the rest of the objects from the site. This is especially probable in the case of 225, which closely resembles loom-weights of the Archaic period from Kolonna. A very large cylindrical object (695), slightly flared at the ends, was probably some sort of spool. Rough clay spools were also found in large numbers in certain rooms. They were probably used in weaving.

Clay Palette.

186. K. 149. (Pl. XXX, 3.)

Clay Loom-weights.

124. Bought.

225. K. 15.

Clay Spool.

695. K. 147.

III. *Seals.* Only two seals were found on the site, and both were probably heirlooms from an earlier date. The art of seal-cutting seems to have disappeared completely by the Intermediate Period when very few seal-stones are found. Both examples are extremely well-cut.



FIG. 2.—SEAL.
Scale, 1 : 1.

A button-shaped steatite seal (109) pierced through the knob and with a rosette design on the face was found in the Temple. The closest con-

¹ See p. 124, note 3.

² The earlier loom-weights are for the most part vertically rather than transversely pierced.

temporary parallel is a clay seal from Vrokastro,¹ but 109 is a very fine example and will bear comparison with the rosette pattern on an MM II signet from Mochlos.²

The other seal (620) is a lentoid gem of red jasper engraved with the figure of a lion in a crouching attitude. This was a favourite motive with the Minoan seal-cutter, and can be traced through many variations from an early example on the small-end of a seal from Platanos³ to the decadent type represented by a lion and bull scene from the Little Palace at Knossos.⁴ The crouching position is particularly well adapted to the



620

Fig. 3.—SEAL.

Scale, 1 : 1.

shape of round and lentoid seals and was very popular throughout LM I–III,⁵ nor is the lion on 620 in any way inferior to the average work of this period. Perhaps both 109 and 620 may best be dated to LM IIIb when the Minoan tradition was revived after a short break.⁶

109. K. 1. (Fig. 1.)

620. K. 133. (Fig. 2.)

IV. *Faience*. A single fragment of greenish-blue faience comes from K. 136, but unfortunately it is too small to give any clue to the purpose which it may have served. Seals and beads of faience were found at this period at Vrokastro⁷ and provide almost the only evidence for outside contacts at this period.

637. K. 136.

V. *Wood*. Several fragments of worked wood were found in one of the houses, and their survival is a further indication that the city did not suffer destruction by fire.⁸ There is no means of determining to what these fragments belonged.

224. K. 14.

¹ Vrokastro Fig. 65.² Mochlos Fig. 35.³ VTM Pl. XIII 1087.⁴ P of M IV Fig. 486.⁵ For examples of this see the lion-hunting scenes of LM I: *op. cit.* Fig. 555, the wounded lion from Vapheio *op. cit.* Fig. 500 and the contorted lion *op. cit.* Fig. 583.⁶ *Archaeology of Crete* p. 257.⁷ Vrokastro pp. 135–7.⁸ See p. 136.

VI. *Beads.* A number of beads of varying shapes¹ and materials were found mainly in the city. One (115) is globular and of clay. Two are of bone, one (165) tubular and the other (262) drop-shaped. A green glass² bead (245) and one of green faience (246) are respectively globular and amygdaloid in shape. The remainder are of black or grey steatite, one (545) a short cylinder, another (599) flat and rectangular and a third (616) shaped like a miniature disc.

115. M. 1.
165. M. 8.
245. K. 12.

246. K. 12.
262. K. 41.
545. K. 107.

599. K. 54.
616. K. 3.

5. *Natural Objects.*

This section includes such objects as shells, tusks and fragments of horn found on the site. The skulls, bones and horns from the tombs will be dealt with in a future report.

I. *Shells.* A number of shells were found. These include four large conch shells, one of which had been petrified, four cowries, two oyster shells, three whelks and two molluscs.

Conch Shells.

181. M. 8.
227. K. 16

347. K. 43.

369. K. 1.

Cowries.

203. K. 1.
204. K. 1

366. K. 48.

367. K. 48.

Oyster-shells.

365. K. 9.

366. K. 9.

Whelks.

241. K. 24.

311. K. 38.

321. K. 40-41.

Molluscs.

290. K. 23. Floor.

328. K. 47.

II. *Tusks.* A few boars' tusks were found here. One (229) from beneath the floor of K. 7 was doubly pierced in the curve and probably served as some form of ornament. The position of the holes suggests that it might have been a crescent-shaped pendant.³ Another (300) was

¹ These shapes can be paralleled from *Vrokastro* Fig. 85.

² For the appearance of glass at the end of the Minoan period see *op. cit.* p. 148.

³ The shape seems to suggest part of a necklace rather than an ornament sewn to the clothes.

pierced at one end and sharpened at the other, possibly for use as an awl or puncher.

226. K. 15.

229. K. 17. Below floor.

300. K. 31.

III. *Horn.* One very large piece of bull's horn and many others smaller and more fragmentary were found in the city. Red deer horns also occurred.

247. K. 15.

VI. HISTORY OF THE CITY AND TIMES.

Terminology.

The period to which the occupation of Karphi belongs is clearly the dark age which follows the end of the Bronze Age. This period is often known indiscriminately as the Sub-Minoan or as the Proto-Geometric Period, that term being used which seems to fit best the results at the particular site to which it is applied. Neither term, however, is satisfactory when applied to the period as a whole.

Sub-Minoan pottery is clearly contemporary with Proto-Geometric. It would be absurd to apply the term Proto-Geometric to a city like Karphi, where only one or two sherds of the true Proto-Geometric style have appeared. On the other hand, the term Sub-Minoan takes no account of the very considerable non-Minoan elements which have crept into the architecture and other manifestations of culture. In the same way, it would be absurd to apply the term Sub-Minoan to the Early Iron Age cemeteries of Knossos. Here the term Proto-Geometric is more excusable, though it still takes no account of the many Minoan features which survived there.

It seems to the present writers that the best solution is to use the phrase 'Intermediate Period,' as indicating the transitional nature of the age and allowing the terms Sub-Minoan and Proto-Geometric to be applied in the sense they were originally intended—that is to say, to *style*. This saves the necessity of using two different terms to describe the same period, and by no means denies the possibility that for a short time Sub-Minoan pottery may have been alone in use in the island, or that before the end of the period Proto-Geometric pottery had completely ousted it.

We may compare the use of the same term 'Intermediate Period' by Egyptologists. The First Intermediate Period covers the anarchic days of the VIIth to Xth Dynasties, when Egypt was split up and two dynasties ruled at the same time, one in the north, one in the south. The Second Intermediate Period covers the dark days of the XIVth to XVIIth

Dynasties, and includes the rule of the invading Hyksos in the north while the old princes still ruled at Thebes. This simplifies such cases as when a scarab of Sekenenra of the XVIIth Dynasty is found in the same grave as a seal of his contemporary Apepi the Hyksos of the XVIth.

History of the City.

Since there is no true stratification in the city, or, to be more accurate, since the strata that exist contain no objects which are distinguishable in date,¹ we must rely entirely on the architectural remains to reveal the history of the site. First of all must have come the shelters (τειρήδαις, cf. p. 92) which consisted merely of the walling up of the space between projecting rocks and roofing the whole over with brushwood. As has been pointed out above (pp. 84, 94), the presence of carbonised wood in quantity below the floors of the main Western Quarter implies that these shelters were often removed to make way for more permanent structures. Since no trace of such shelters was found in the, admittedly small, excavated area on the Mikre Koprana side, it may be suggested that the more inaccessible peak of Karphi was the first to be occupied. This again is indicated by the obvious importance of the buildings there.² While these temporary shelters were inhabited, the building proper was begun. First of all we may believe that the main room of the Great House (9), perhaps the Temple (1), and almost certainly the simple buildings of the 'Barracks,' were set in hand. From the great accumulation of pottery and made earth below 12, 13, 16, 17 and 70, we assume that this area was the communal rubbish-tip. With the completion of these buildings, or even before, other structures arose, the Magazines, the rooms 42, 43, 46, 47 and the road 45, 51, 50 in the Southern Houses, as well as the Eastern Block. Next must come the additions to the Great House, involving the covering over of the old rubbish-pit. At the same time the proper regularisation of the town must have taken place. Broad Road, with its two branches leading up to the Temple, was laid. The public square, 48, was planned and the rooms 44, 24-28 which cut into the old Southern Houses, as well as into the south-west corner of the Magazines. 49 also is built, which means the blocking of the old 45, 51, 50 road, the east end of which is now turned into part of the old Southern Houses, while a new road, 52-54, is run round to the north. There is another square where 86 and 88 are now. The various quarters must by this time have been well defined, and no doubt the city had already spread over the Koprana.

¹ Cf. almost exactly the same difficulty at Tell el-Amarna *City of Akhenaten* II 3.

² Again cf. Tell el-Amarna, where the Central City, containing the official buildings, was the first section set in hand. Cf. the forthcoming *City of Akhenaten* III.

Finally came various minor alterations. Temple Road East was blocked by the building of 70, perhaps an additional cellar for the Great House, and the enlargement of 74, 71; the upper square was diminished and the continuation of Broad Road blocked by the construction of 88 and 86.

As we have seen (p. 66 above), there is reason to believe that a violent storm of rain occurred, with accompanying floods, which destroyed much of the paving of the roads shortly before the city was deserted.

That this desertion took place peacefully is practically certain. There are no traces of any catastrophe such as an earthquake or a sack. No deposits sealed by fallen walls or roofs have been found. The remains of the roofs are, as has been said above, carbonised, but this is clearly due to the action of the soil rather than to any conflagration. We can, indeed, see traces of accidental fires in such rooms as 23. Here, however, the consistency of the carbonised wood is quite different and the stones of the walls are blackened. Similarly in such rooms as 68 and 113, where there had been fireplaces, the blackening of the walls and the earth was strictly localised.

Had any catastrophe occurred which necessitated the hurried departure of the inhabitants, it is almost certain that more objects other than pottery would have been found. Everything points to a peaceful, leisurely desertion of the population, who had plenty of time to take all their valuables with them, including the new-fashioned and still rare and valuable iron, of which only the smallest remains were found.

The reasons for this departure and the site of the new city which the inhabitants founded we shall discuss below.

The Culture of the City.

The vast bulk of the objects found can be dated with certainty to the Intermediate Period—that is to say, between the extreme limits of 1100 B.C. and 900 B.C.¹ No objects of a later date have been found except the Geometric vase from Ta Mnemata 1 (p. 101) and the sporadic Archaic and later figurines, all of which seem to have come from the Sanctuary above Vitzelovrysis (p. 100). Reason will be shown for attributing the pottery, however Minoan in style, to this period. Such objects as are undoubtedly earlier fall into two very distinct classes. (1) Objects of considerably earlier date, such as the Neolithic stone axes (p. 125) and Early and Middle Minoan stone vases (p. 122), which were no doubt found by the inhabitants in such caves as Trapeza or excavated in tilling the fields and preserved because of their continued usefulness.² (2) Objects

¹ We take the generally accepted dates for this period, cf. *Archaeology of Crete* p. 313.

² Examples of the use of objects of durable materials long after they were made are given in *Archaeology of Crete* pp. 54 and 227. Many houses all over Greece and the Islands use vases or lamps which have been found in the owners' fields.

of Late Minoan III fabric—*i.e.*, dating to the period immediately preceding the present one, such as the seal stone (p. 132) and one or two vases which were no doubt brought to Karphi by the original inhabitants who would not have come without a single possession.

It must be noted also that the site is in utter contrast with any known Bronze Age settlement,¹ and also with such sites of the Intermediate Period as Knossos, Mallia, Anopolis, etc., where Proto-Geometric pottery predominates. It is, however, typical of the Intermediate Period sites which are Sub-Minoan in character, Kourtais, Vrokastro, Kavousi, Ellenika Zakrou, of excavated sites and Orino, Kastri, Palaialemata above Monasteraki, of unexcavated sites.

Architecturally the city is a mixture. The earliest buildings were simple in the extreme—single rooms. A feature is the entrance to the short end instead of on the long side, after the Minoan fashion. Next comes the more elaborate 138–40, which is of a pure ‘megaron’ type, even down to the hearth. So also is the Great House in its enlarged form. The Priest’s House (58–61, 80) has the difference that it is entered on the long side. The Great House, indeed, might well be taken as an excellent example of a Homeric house. 8 would be a combination of the πρόδομος and αἶθουσα, for a portico pure and simple would not be a convenient feature on this bleak site. 9 would be the megaron with its hearth and columns. The raised hatch between it and 14 would be the ὀροσθύρη. 14 can hardly be called the λούρη; it is more like the θάλαμος ὀπλων. 11 the θάλαμος. 16 and 17 the αὐλή. The only real distinction is that the roof was flat, not gabled. Many other houses, however, conform to the rambling style of Gournia and other Minoan sites, while the Temple, though it is the first example of a Minoan temple on this scale yet found, is at all events not of northern origin. Now, the date when these houses were built is admittedly that of the Dorian invasion, but that invasion can hardly be dissociated, in Crete at least, from Proto-Geometric pottery, and of that there was practically no trace on Karphi. Such house-plans are connected with the Achaeans, who were the Dorians’ immediate predecessors as lords of Crete. When they arrived, late in LM III, they must have come as a comparatively small ruling caste, and they found magnificent palaces ready to receive them. It was not until such cities of refuge as Karphi were founded that they were able to build houses according to their own traditional plans. But even here they had to be content with the flat Minoan roofs. It is easy enough to order your masons to build a house on a plan to which they are not accustomed, but unless you have joiners and carpenters who understand a gable, you must

¹ Many of the figurines from the ‘Peak Sanctuary’ would have inclined us to believe that, as on Juktas and Petsophas, such a sanctuary had existed here from Middle Minoan I times had a single sherd earlier than the present period been found with them.

go by the custom of the country. The Temple was a different matter: since the deity there worshipped was the Minoan mother-goddess, she naturally had to have the accommodation to which she was accustomed.

The tombs also point in the same direction. In spite of the discovery at Knossos of an isolated tholos dating from LM I,¹ it is clear that the circular vaulted tomb was not native to Crete, which preferred the rectangular keel-vaulted tomb right down to LM III.² The circular tholos does not come in as a regular type until the very end of LM III,³ and even then it is frequently rectangular or polygonal at the foundations, the circular vault not beginning for at least a course.

In the Intermediate Period, however, this type becomes common, again in those areas which are predominantly Sub-Minoan.⁴ Built tombs do not occur at the Proto-Geometric site of Knossos. It should also be noticed that there is no trace of cremation, an invariable concomitant of Proto-Geometric pottery. Of the common people's cemetery we know nothing. Probably the practice of pithos burial still held: the pithos in Astividhero 4 must not be forgotten.⁵

Taken as a whole, the architecture shows a distinct admixture of a non-Minoan element which it is reasonable to identify with the Achaeans.

The pottery is Sub-Minoan in character and resembles that from other fortress sites of the Intermediate Period. Karphi, however, was more isolated than these, and consequently styles which elsewhere may have had a briefer existence persisted there as long as the city was inhabited.⁶ The lack of change during a period which must have lasted some two hundred years is remarkable, but imports are practically non-existent and, apart from raiding parties which would be unlikely to burden themselves with breakables, there can have been little intercourse with the lowlands by which new fashions could be brought in.

The repertory of shapes is comparatively small, and most of them may occur in any size or ware. Decorations also show little invention, for the same motives are constantly repeated, and their details are so much alike that it seems as though the artist himself must sometimes have forgotten what he was drawing. It is perhaps curious that the most Minoan designs should so often occur on relatively non-Minoan shapes, but this may be due, particularly in the case of those which have religious associations, to a deliberate fostering of Minoan traditions.

In spite of their sameness, both shapes and decorations do in fact

¹ *JHS*. LIX p. 203.

² Cf. Dhamania. *Ἀρχ. Δελτ.* II p. 171.

³ *Trans. Penn. Univ.* II 113, 129. But should this now be dated to the Intermediate Period? cf. above p. 111.

⁴ Whence came the local development of a free-standing tomb we do not know. It is not found on neighbouring sites such as Erganos.

⁵ But cf. above p. 65, n. 2.

⁶ In particular the characteristic 'fringed style'.

show a mixture of origins sufficient to furnish evidence as to the history of the people who produced them. Both are in some cases primarily local; in others are derived from types common at Knossos and elsewhere before the overthrow of the Minoan power; in others, again, point to a northern rather than to a purely Cretan ancestry, and in a few connect with true Proto-Geometric styles. These characteristics are summed up in a pyxis from 114. Perhaps the only thing about it that is local is its clay, but the horns of consecration and double axes on its sides are Minoan, the birds and its general shape Achæan and the pattern on its lid Proto-Geometric or Dorian. In other words, the pottery suggests Achæan influence and some knowledge, coupled with distrust, of Dorian fashions.

The cult objects and the figurines which must be taken with them are all indisputably Minoan in character. The inhabitants of Karphi evidently clung to the old religion of the country and refused to allow innovations to interfere with it.

In metal-work the two non-Minoan features are the use of iron and of fibulae. Iron would, of course, naturally be used as soon as it was introduced, and has no ethnological significance. Fibulae occur at the very end of LM III, and may well be an Achæan introduction. It must be remembered that our examples are of the most primitive type yet found in Crete. They argue a form of dress which, if northern in origin, was also suitable to the climate of Karphi.

Anthropological conclusions will be given in a later paper.

The picture that we obtain from a combination of all the material is of a Minoan population under the rule of a small caste of non-Minoan origin, probably Achæans. From their masters, who have small skill in arts, they borrow little. Some of the house-plans are modified, and the ruling caste is naturally buried in tombs of its own pattern, while certain shapes in pottery, particularly in fine wares, are evolved to suit their tastes, and a warmer type of clothing is no doubt adopted with enthusiasm. From the invaders who had driven them out they learn the use of iron and a few more shapes in pottery, although the new Proto-Geometric decoration is too alien to their mentality to be accepted.

Of their life it is difficult to speak. In spite of the fact that the hills were not yet denuded of trees, the site must have been almost unbearably cold in winter. Even in July the hill is often covered in cloud, and several times excavation has been impossible owing to the cold. In winter drifts of snow feet deep lie on it. Probably at that time of year—by common consent in antiquity a period of truce—the inhabitants descended to the plain. A site of the period is known at Armi near Mesa Lasithi.

How much of the plain was cultivable in those days one cannot say. Even if it was too marshy, there were enough terraces on the foothills to raise corn, while the upper slopes of the hills provided, as they do to-day,

excellent pasturage for sheep and goats. But it is also impossible to avoid the picture of a brigand city, living largely on the wealth of the lowlands, raiding the fertile valley of Goniais and Avdhou, spoiling the rich coast-land of Mallia and retiring with the booty, making stands, perhaps, at the old forts of Apano Limia and Omalais, until their loot had been safely conveyed into the tangle of the mountains.

History of the Period.

It is now time to fit the individual history of Karphi into the general framework of the Intermediate Period.¹ It is, of course, theory, but a theory which seems to fit the known facts.

About 1100 B.C. the Bronze Age civilisation of the Aegean came to an end. Perhaps it lasted slightly longer in Crete than elsewhere, but at all events early in the eleventh century occurs an invasion of a people whom we may reasonably identify with the Dorians. Their coming is marked, as has been said above, by the introduction of Proto-Geometric pottery, of iron, of the regular use of fibulae and of cremation. On their arrival they settle, as might be expected, on the coast, the greatest centre being Knossos. Gradually they extend their power and push their way up to the fertile plains of Pedhiadha and the Messara.

The population they found already in possession consisted of the old Minoan stock with a small ruling caste of Achaeans, who may have originally been no more than a body of house-carles for Idomeneus,² and had by now become very nearly absorbed into the Minoan population.

This mixed race behaved as true Cretans have behaved ever since. They took their arms and fled to the hills.³ Since Karphi is quite the largest in extent and the richest of these cities of refuge, it was evidently the centre of the old régime. We can imagine the ruler still calling himself by the title of 'Minos.' Did he possibly, in his dual capacity of Minos and of βασιλεύς of his Achaeans, act as a rallying-point for Achaean refugees from elsewhere, the islands for instance or even the mainland? The Achaean element is certainly stronger here than elsewhere in Crete.

At all events, this state continued its uncomfortable existence for nearly two hundred years. Then, when things had become calmer, when the first rush of the invasion had spent itself, the invaders themselves

¹ This is a more detailed restatement of views held from the results of the first year's excavations and expressed in *Papers presented to J. L. Myres BSA XXXVII* pp. 194 ff. p. 197.

² We have suggested, *ibid.* p. 197, that Idomeneus himself may have been a Minoan prince confirmed in his kingship by the Great King of Achaia.

³ Contrast however their own valuation!

Ἡμεῖς τὰ Κρητικὰκία εἶμασθε παλλικάρια

*Αμα ἀκοῦμεν πόλεμον, μπαίνομεν μέσα στ' ἀμπάρια.

perhaps having inter-married with the native population, the inhabitants quietly and peacefully, as we have seen, deserted Karphi, taking their valuables with them, and descended to found a new city on the Papoura, some seven hundred feet below. Exactly when this occurred it is not yet possible to say. As has been pointed out, the latest object from the site is the Geometric vase from Ta Mnemata 1. That, however, is conceivably due to the fact that the tomb was a family one which continued to be used after the desertion of the city. Until the Papoura has been excavated we cannot tell whether any remains of the Intermediate Period exist on it. So far, though Geometric and later objects are commonly found and a few sherds of Minoan date have been picked up, the present period is missing. But the possibility must be borne in mind that the abandonment of Karphi and the foundation of the Papoura took place before the end of the Intermediate Period.

In any case, however, by 900 B.C. Karphi was deserted. Gradually the houses and shrines fell into ruin. No later settlement existed near enough for it to be profitable to remove the blocks for building purposes elsewhere. The stones lay where they fell. Gradually, as the roofs fell in and disintegrated and as the soil was washed down from above, it became covered, and for two thousand, eight hundred years it lay forgotten on its lonely crag.

VII. REGISTER OF BUILDINGS AND TOMBS.

In the following register the Arabic numerals denote the page on which the quarter, house or room is the main topic of mention and the italic numerals denote casual mention in the text.

I. THE CITY

A. *Quarters or Blocks in the City*

<i>No.</i>	<i>Name of Quarter</i>	<i>Page</i>
1	Mikre Koprana	69. 65, 114, 135
2	Eastern Block	70. 65, 114, 135
3A	'Barracks'	72. 64, 135
3B	'Road House'	74.
3C	South-East Block	74.
4A	Temple	75. 57, 64, 135, 138
4B	Dependencies of the Temple	76.
5	Great House	77. 57, 64, 114, 135, 137
6	Magazines	79. 64, 135
7	Southern Houses	81. 64, 135
8	Small Shrine	84. 64

<i>No.</i>	<i>Name of Quarter</i>	<i>Page</i>
9	Priest's House	84. 64, 137
10	Baker's House	86.
11	'Commercial Quarter'	88.
12	Central West Quarter	89. 65, 135
13	South Shelters	92. 64
14A	Cliff Houses East	93. 89
14B	Cliff Houses West	94. 65, 89, 135
15	North Shelters	96. 65
16	Summit	97. 65

B. *Rooms, etc.*

1	Temple (4A)	75. 57, 64, 68, 131, 135
2	Barracks (3A)	73. 64, 74
3	Barracks (3A)	73. 64
4	Barracks (3A)	73. 64
5	Barracks (3A)	73. 64
6	Barracks (3A)	73. 64
7	Barracks (3A)	73. 64, 127, 133
8	Great House (5)	77. 64, 137
9	Great House (5)	77. 64, 66, 135, 137
10	Broad Road	79.
11	Great House (5)	77. 64
12	Great House (5)	77. 64, 68, 135
13	Great House (5)	77. 64, 66, 68, 86, 135
14	Great House (5)	77. 64, 137
15	Great House (5)	77. 64, 68
16	Great House (5)	77. 64, 86, 135, 137
17	Great House (5)	77. 64, 86, 135, 137
18	Great House (5)	77. 64
19	Dependencies of the Temple (4B)	76. 64
20	Dependencies of the Temple (4B)	76. 64
21	Magazines (6)	80.
22	Magazines (6)	80. 64, 68
23	Magazines (6)	80. 64, 68, 136
24	Southern Houses (7)	81. 64, 135
25	Southern Houses (7)	81. 64, 135
26	Southern Houses (7)	81. 64, 118, 135
27	Southern Houses (7)	81. 64, 135
28	Southern Houses (7)	81. 64, 135
29	Magazines (6)	80. 64
30	Magazines (6)	80. 64
31	Magazines (6)	79. 64
32	Broad Road	79. 84, 86
33	Magazines (6)	79. 64
34	Magazines (6)	79. 64
35	Magazines (6)	79. 64
36	Magazines (6)	79. 64
37	Magazines (6)	79. 64
38	Dependencies of the Temple (4B)	76. 64
39	Dependencies of the Temple (4B)	76. 64
40	Dependencies of the Temple (4B)	76. 64
41	Dependencies of the Temple (4B)	76. 64

<i>No.</i>	<i>Name of Quarter</i>	<i>Page</i>
42	Southern Houses (7)	81. 64, 135
43	Southern Houses (7)	81. 64, 135
44	Southern Houses (7)	81. 64, 135
45	Southern Houses (7)	81. 64, 135
46	Southern Houses (7)	81. 64, 135
47	Southern Houses (7)	81. 64, 135
48	Broad Road	81. 64, 135
49	Southern Houses (7)	81. 64, 135
50	Southern Houses (7)	81. 64, 135
51	Southern Houses (7)	81. 64, 135
52	Broad Road	83. 66, 135
53	Broad Road	83. 135
54	Broad Road	83. 135
55	Small Shrine (8)	84. 64
56	Broad Road	89. 87, 88
57	Small Shrine (8)	84. 64
58	Priest's House (9)	85. 64, 137
59	Priest's House (9)	85. 64, 83, 137
60	Priest's House (9)	85. 64, 137
61	Priest's House (9)	84. 64, 89
62	Southern Shelters (13)	92. 64
63	Southern Shelters (13)	92. 64
64	Southern Shelters (13)	92. 64
65	Southern Shelters (13)	92. 64
66	Central West (12)	89. 65
67	Central West (12)	89. 65
68	Central West (12)	89. 65, 136
69	Central West (12)	90. 65, 67, 68, 122
70	Temple Road East	86. 64, 87, 135, 136
71	Baker's House (10)	86. 64, 136
72	Temple Road East and West	86. 66, 88, 93, 96
73	Baker's House (10)	86. 87, 88
74	Baker's House (10)	86. 136
75	Cliff Houses East (14A)	93.
76	Temple Road West	87. 88
77	Commercial Quarter (11)	88.
78	Commercial Quarter (11)	88.
79	Commercial Quarter (11)	88. 89
80	Priest's House (9)	85. 64, 67, 137
81	Central West (12)	90. 65, 68
82	Central West (12)	90. 65, 68
83	Central West (12)	90. 65, 84
84	Central West (12)	90. 65, 84
85	Central West (12)	90. 65
86	Central West (12)	90. 64, 65, 89, 93, 94, 135, 136
87	Central West (12)	90. 65, 136
88	Central West (12)	90. 64, 65, 89, 121, 135
89	Broad Road and Commercial Quarter (11)	88. 94
90	South Shelters (13)	92. 64
91	South Shelters (13)	92. 64
92	South Shelters (13)	92. 64
93	South Shelters (13)	92. 64

<i>No.</i>	<i>Name of Quarter</i>	<i>Page</i>
94	South Shelters (13)	92. 64
95	South Shelters (13)	92. 64
96	Central West (12)	90. 65, 67
97	Central West (12)	90. 65
98	South Shelters (13)	92. 64
99	South Shelters (13)	92. 64
100	Central West (12)	90. 65
101	Broad Road	93. 66
102	Cliff Houses West (14B)	95. 65
103	Broad Road	93. 66, 90
104	North Shelters (15)	96. 65
105	Broad Road	93. 66, 90
106	Cliff Houses West (14B)	95. 65, 118
107	North Shelters (15)	96. 65
108	North Shelters (15)	96. 65
109	North Shelters (15)	96. 65
110	Cliff Houses East (14A)	93. 65
111	Broad Road	93. 66, 94
112	Commercial Quarter (11)	88.
113	Cliff Houses West (14B)	94. 64, 65, 136
114	Cliff Houses West (14B)	94. 65, 139
115	Cliff Houses West (14B)	95. 65
116	Commercial Quarter (11)	88.
117	West Road	89. 64, 93
118	Cliff Houses East (14A)	93.
119	Cliff Houses East (14A)	93.
120	Cliff Houses West (14B)	94. 65
121	Cliff Houses West (14B)	95. 65, 94
122	North Shelters (15)	96. 65
123	North Shelters (15)	96. 65
124	North Shelters (15)	96. 65
125	North Shelters (15)	96. 65
126	Cliff Houses West (14B)	95. 65, 96
127	North Shelters (15)	96.
128	Summit (16)	97. 65
129	Summit (16)	97.
130	South East Block (3C)	74. 64
131	South East Block (3C)	74. 64
132	South East Block (3C)	74. 64
133	South East Block (3C)	74. 64
134	Barracks (3A)	72.
135	Eastern Block (2)	71. 65, 70
136	Eastern Block (2)	71. 65, 132
137	Eastern Block (2)	71. 65
138	Eastern Block (2)	71. 65, 67
139	Eastern Block (2)	71. 65
140	Eastern Block (2)	71. 65
141	Eastern Block (2)	71. 65
142	Eastern Block (2)	71. 65
143	Eastern Block (2)	71. 65, 70
144	Eastern Block (2)	71. 65, 70
145	Barracks (3A)	72. 64

<i>No.</i>	<i>Name of Quarter</i>	<i>Page</i>
146	Road House (3B)	74. 65
147	Mikre Koprana (1)	69. 65
148	Mikre Koprana (1)	69. 65
149	Kikre Koprana (1)	69. 65
150	Mikre Koprana (1)	69. 65

C. Roads

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Cliff Road	96. 64
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Vitzelovrysis Sanctuary	100. 115, 122, 136

III. THE TOMBS

<i>No.</i>	<i>Page</i>
<i>Ta Mnemata</i> M. 1	100. 57, 103, 136, 141
M. 2	101. 57, 103, 127
M. 3	102. 57, 115
M. 4	102. 57, 114, 121
M. 5	103. 57, 110
M. 6	103. 57, 110
M. 7	104. 57, 113
M. 8	104. 57, 113, 114, 115
M. 9	105. 58, 110, 115
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M. 11	106. 58, 110, 114, 121
M. 12	106. 58, 110
M. 13	106. 58, 110
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M. 15	106. 58, 66, 105, 110
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<i>Astividhero</i> A. 1	108. 58
A. 2	108. 58
A. 3	108. 58
A. 4	108. 58, 112, 138

THE FLOWERS OF LASITHI

IN the past the inaccessability of the Lasithi district of Crete has made a thorough botanical survey difficult. Its flora is still imperfectly known, but as far as can be ascertained at present, it is definitely not as rich in rare plants as several other Cretan districts. Even so, it contains well over a dozen of the island's most spectacular endemics.

The Lasithi plain itself is too well cultivated to allow many plants to grow, but the annual *Crepis rubra*, with flowers like clear pink Dandelions, is a weed on many of the banks. During late summer the grey spiny hummocks of *Cichorium spinosum* are none too lavishly dotted with their soft sky-blue flowers of typical Chicory shape, and in the walls at the western end of the plain *Aristolochia sempervirens*¹ is firmly established. The leaves are shaped like arrow-heads, of a dark and glossy green, and among the long twining stems hang down the flowers. Their bent tubular shape is weirdly fantastic and their colour equally so, being dark brownish maroon with a startling golden blotch on the lip.

The red limestone cliffs behind Tzermiadho perhaps produce the richest flora of the district—by which I mean the greatest number of rare plants. Wherever it appears in the Mediterranean, this type of rock always seems to offer an excellent hunting-ground for the botanist.

The cliffs at Tzermiadho are no exception. Fine bushes of *Dianthus juniperinus* var. *aciphyllus* are in flower in June, followed a few weeks later by *Stachelina arborescens* (Compositae). The dark oval leaves with a silvery reverse of softest satin make this a particularly striking shrub. In the shadier parts of the cliff the enormous purple bells of *Campanula corymbosa* may be found in May and June. *Petromazula pinnata* (Campanulacea), a Cretan endemic and the only member of its genus in the world, is very abundant here. The starry flowers with reflexed petals are usually mauve, but here the form is almost white. The grey rosettes of *Cotyledon serratum* are wedged in the tightest crevices, giving it the appearance of an encrusted Saxifrage.

While botanising on these cliffs in May 1938, my friend and I found a fine shrubby *Hypericum* which seems likely to be a new species. It is nearly related to *Hypericum empetrifolium*, a common plant in Greece and Crete, but the growth is quite different, the leaves are in fours instead of in threes, and the bracts are devoid of the characteristic black glandular dots.

¹ The flowers italicised indicate species endemic to Crete.

To the South of the plain rises the *massif* of the Diktaian Mts., the Limnakaros plain at its foot. *Campanula Sibthorpiana* is common here, growing through the little prickly bushes of *Poterium spinosum* and *Euphorbia acanthothamnos*. The regularly branching dead spines of the latter give the bush the appearance of being covered with wire-netting. *Orchis lactea* is fairly plentiful, and in 1937 I found *Orchis hircina* in the limestone scree. It bears tall spikes of lavender flowers with a long twisted labellum and reeks of goat. I believe it has not been previously found in Crete.

By the spring under the big walnut trees grows a large *Umbilicus* with fat spikes of yellow flowers in July. It is not a refined plant but appears to be a new species.

One of the most attractive endemics found in the Diktaian Mts is *Viola fragrans*. Among the highest screees of Spathi this *Viola*, bright butter yellow and scented, runs about among the stones or mats of *Prunus prostrata*, where its colour clashes rather violently with the pink of the dwarf alpine cherry. Often growing with the *Viola* is *Veronica thymifolia*, a tiny grey-leaved plant. The prostrate stems bear tight heads of pink or lavender-blue flowers.

Between 4000 and 5000 ft. *Iris cretensis* is found in the hot scree. The growth resembles tight tussocks of grass, but the flowers are beautifully veined with darker purple and gold. A little higher *Daphne olioides* var. *brachyloba* (this variety is peculiar to the Diktaian Mts.) forms wide low bushes covered with tubular flowers of thick waxy whiteness, and among it grows the fragrant *Cyclamen creticum* with deeply scalloped marbled leaves. It is little more than a white form of *Cyclamen repandum*, so common in the Western Mediterranean. I have found here also an alpine *Ornithogalum*, as yet undetermined, but quite different from *O. nanum* which grows high above Katharos.

Spiny plants are plentiful in Crete, and in these mountains *Berberis cretica*, *Astragalus augustifolius* and *A. creticus* form a large part of the vegetation, together with *Satureia spinosa*.

Two of Crete's dullest endemics, *Draba cretica* and *Viola cretica*, the latter only found in Lasithi, are both fairly common on the higher slopes of Spathi. But *Corydalis uniflora* is a genuinely attractive alpine with thick glaucous leaves and whitish flowers veined with maroon. *Tulipa cretica* often grows in the same stony ground it frequents. This must be one of the smallest tulips known; the leaves twist slightly but lie flat on the ground and the practically sessile flowers, pale pink or white, are lined outside with varying shades of reddish-brown.

Wedged among the deep stones, the corms of *Arum creticum* send up large flowers of a thick rich yellow with a darker spadix. Its near relative, *Dracunculus vulgaris* var. *creticus*, is fortunately not too abundant in the district.

The enormous black-crimson flowers, of marvellously obscene appearance, emit an unbearable odour.

By the edge of the melting snow grow three of Crete's loveliest endemics: *Chionodoxa cretica*, *C. nana*, and *Crocus Sieberi* var. *heterochromus*. The two *Chionodoxas* are the only European representatives of the genus, though *C. nana* is really a white alpine form of the blue *C. cretica*. The *Crocus* is magnificent. Inside the flowers are pure white with a yellow centre and fringed scarlet stigma. The purple markings on the outside are very variable, or may even be absent altogether. But whatever its forms, it remains, with *Viola fragrans*, one of the most striking flowers in the Lasithi Mts.

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RULES AND REGULATIONS

OF THE

BRITISH SCHOOL AT ATHENS.

OBJECTS OF THE SCHOOL.

I. The first aim of the School shall be to promote the study of Greek archaeology in all its departments. Among these shall be (i) the study of Greek art and architecture in their remains of every period; (ii) the study of inscriptions; (iii) the exploration of ancient sites; (iv) the tracing of ancient roads and routes of traffic.

II. Besides being a School of Archaeology, it shall be also, in the most comprehensive sense, a School of Classical Studies. Every period of the Greek language and literature, from the earliest age to the present day, shall be considered as coming within the province of the School.

III. The School shall also be a centre at which information may be obtained and books consulted by British travellers in Greece.

IV. For these purposes a Library shall be maintained of archaeological and other suitable books, including maps, plans, and photographs.

THE SUBSCRIBERS.

V. The following shall be considered as Subscribers to the School:—

- (1) Annual Subscribers of £1 and upwards during the period of their subscription.
- (2) Persons not Corporate Bodies, who pay the sum of not less than £10 to the general funds of the School and are to be considered as compounding thereby for life for an Annual Subscription of £1.
- (3) Persons not Corporate Bodies, who pay the sum of not less than £20 to the general funds of the School and are to be considered as thereby compounding for life for an Annual Subscription of £2 entitling them to privileges of VI (b).

VI. (a) Subscribers of £1 annually, and persons who have compounded as prescribed in V (2) to the general funds shall be allowed to purchase the *Annual* at a reduced rate of £1.

(b) Subscribers of £2 or more annually, and persons who have compounded as prescribed in V (3) and upwards to the general funds of the School, shall receive the *Annual* free of charge.

(c) All Subscribers shall be entitled to receive the Annual Report and the Director's Annual Survey "Archaeology in Greece" and to attend public meetings of the School, and (when visiting Athens) to use the Library.

Subscribers resident in Athens who desire to make use of the Library shall pay a subscription of not less than £2 2s.

VII. A Corporate Body subscribing not less than £50 a year, for a term of years, shall, during that term, have the right to nominate a member of the Managing Committee.

VIII. A Meeting of Subscribers shall be held annually after the close of the School's financial year, at which each Subscriber shall have one vote. A subscribing Corporate Body may send a representative. At this Meeting a report from the Managing Committee shall be presented, including a financial statement and selections from the reports of the Director and Students for the season. At this Meeting shall also be annually elected or re-elected the Honorary Officers of the School, the Auditors, and two members of the Managing Committee, in place of those retiring under Rule XIV.

IX. Special meetings of Subscribers may, if necessary, be summoned by the Managing Committee.

THE TRUSTEES.

X. The property of the School shall be vested in three Trustees, who shall be appointed for life, except as hereinafter provided. Vacancies in the number of Trustees shall be filled up at the Annual Meeting of the Subscribers.

XI. In the event of a Trustee becoming unfit or incapable of acting, he may be removed from his office by a majority of three-fourths of those present at a special meeting of Subscribers summoned by the Managing Committee for that purpose, and another Trustee shall by the same majority be appointed in his place.

XII. In the event of the death or resignation of a Trustee occurring between two Annual Meetings, the Managing Committee shall have the power of nominating another Trustee to act in his place until the next annual meeting.

RULES AND REGULATIONS

THE ADVISORY COUNCIL.

XIII. There shall be an Advisory Council, unlimited in number and composed of:—

- (1) The President and a number of Vice-Presidents elected or re-elected annually by the Subscribers.
- (2) The Trustees and Honorary Officers of the School.
- (3) Members appointed ex officio: viz., H.M. Minister at Athens, the Chairman of the British Council, and such others as the Subscribers shall from time to time determine.
- (4) Members nominated by Corporate Bodies subscribing £50 a year or more, as in VII.
- (5) Members elected by the Subscribers at the annual meetings.
- (6) Members co-opted by the Managing Committee subject to confirmation by the Subscribers at their next Annual Meeting.

THE MANAGING COMMITTEE.

XIV. There shall be a Managing Committee composed of:—

- (1) The President and Vice-Presidents.
- (2) The Trustees and Honorary Officers.
- (3) The nominated members of the Council.
- (4) Eight members of the Council appointed by the subscribers. Two of these members to retire each year and not to be eligible for reappointment to the Managing Committee in that year.

XV. The Committee shall have control of all the affairs of the School, and shall decide any dispute that may arise between the Director and Students. They shall have power to deprive any Student of the use of the School premises.

XVI. The Committee shall meet as a rule once in every two months during the School session; but the Secretary may, with the approval of the Chairman and Treasurer, summon a special meeting when necessary.

XVII. Due notice of every meeting shall be sent to each member of the Committee by a summons signed by the Secretary. Three members of the Committee shall be a quorum.

XVIII. In case of an equality of votes, the Chairman shall have a second or casting vote.

XIX. In the event of vacancies occurring among the Officers or on the Committee between the annual elections, they may be provisionally filled up by the Committee until the next annual meeting.

HONORARY STUDENTS AND STUDENTS.

XX. The Students shall consist of the following:—

- (1) Graduate Holders of travelling fellowships, studentships, or scholarships at any University of the British Empire.
- (2) Travelling Students sent out by the Royal Academy, the Royal Institute of British Architects, the Byzantine Research and Publication Fund, or other similar bodies.
- (3) Other persons who satisfy the Managing Committee that they are duly qualified to be admitted as Students.

XXI. No person, other than a student of the British School at Rome or the Florence Student of the Royal Institute of British Architects, shall be admitted as a Student who does not intend to reside at least three months in Greek lands. In the case of Students of the British School at Rome, an aggregate residence of four months at the two Schools will be accepted as alternative to three months' residence in Greece. The Managing Committee may also grant the privileges of a Student to other persons for a shorter period.

XXII. Students attached to the School will be expected to pursue some definite course of study or research in a department of Hellenic studies, and to write in each season a report upon their work. Such reports shall be submitted to the Director, shall by him be forwarded to the Managing Committee, and may be published by the Committee if and as they think proper.

XXIII. Intending Students are required to apply to the Secretary. The School Session shall be from November 1st to July 1st. Students shall only be granted admission for one session at a time. They shall be regarded as Students from the date of their admission by the Committee to the 31st day of October next following; but any Student admitted between July 1st and October 31st in any year shall continue to be regarded as a Student until October 31st of the following year.

XXIV. The Managing Committee may elect as Honorary Students of the School such persons as they may from time to time deem worthy of that distinction. Honorary Students enjoy all the privileges of Students without payment of admission charges, but pay the same rates as Students if they reside or mess in the Hostel.

XXV. Honorary Students, Students, and Associates elected before 1936 shall have a right to use the Library of the School and to attend all lectures given in connexion with the School, free of charge.

XXVI. Students shall be expected to reside in the Hostel, except with the sanction of the Director. Priority of claim to accommodation in the Hostel shall be determined by the Committee.

See also under Rules XXVII-XL, XLIV-XLVI.

THE DIRECTOR.

XXVII. The Director shall be appointed by the Managing Committee, on terms which shall be agreed upon at the time, for a period of not more than three years. He shall be eligible for re-election.

XXVIII. He shall have possession of the School-building as a dwelling-house.

XXIX. It shall be his duty (1) to guide and assist the studies of Students and Associates of the School, affording them all the aid in his power, and also to see that reports are duly furnished by Students, in accordance with Rule XXII, and placed in the hands of the Secretary before the end of June; (2) to edit the *School Annual* with such assistance, paid or unpaid, in London, as the Committee may provide from time to time.

XXX. Public Meetings of the School shall be held in Athens during the season, at which the Director and Students of the School shall read papers on some subject of study or research, and make reports on the work undertaken by the School.

XXXI. He may at his discretion allow persons, not Students of the School, to use the Library and attend the public meetings and lectures of the School.

XXXII. He shall be resident at Athens from the beginning of November in each year to the end of the following June, but shall be at liberty to absent himself for short periods for purposes of exploration or research. He shall visit Knossos at least once in each session and shall report to the Committee as to the management of the property.

XXXIII. At the end of each season he shall report to the Managing Committee—(i) on the studies pursued during the season by himself and by each Student; (ii) on the state of the School-premises and the repairs needed for them; (iii) on the state of the Library and the purchases of books, &c., which he may think desirable; and (iv) on any other matter affecting the interests of the School.

XXXIV. In case of misconduct the Director may be removed from his office by the Managing Committee by a majority of three-fourths of those present at a meeting specially summoned for the purpose. Of such meeting at least a fortnight's notice shall be given.

See also under Rules VIII, XV, XXII, XXVI, XXXVI-XXXVII, XXXIX, XLIII-XLV, LI-LII.

THE ASSISTANT DIRECTOR AND LIBRARIAN.

XXXV. The Assistant Director shall be appointed by the Managing Committee, on terms which shall be agreed upon at the time, for a period of not more than three years. He shall be eligible for re-election.

XXXVI. It shall be his duty, subject to the Director's approval and control, to take charge of the Library and to be responsible for the Hostel, and otherwise help in the management of the School.

RULES FOR THE MACMILLAN HOSTEL.

XXXVII. The Director shall have power to exclude a Student from the Hostel in case of misconduct; but such exclusion must be immediately reported to the Managing Committee.

XXXVIII. Every Student shall pay an admission charge of £3 3s. per session to the *Secretary*, 50 Bedford Square, London, W.C.1, before leaving for Greece, and no Student will be entitled to accommodation in the Hostel until this fee has been paid. The rent charges in the Hostel are:—

3/- per single room per night.

2/6 „ share in a double room per night.

These payments include light and servant's wages. Students are also required to pay their messing.

XXXIX. Honorary Students, Associates, Members of the Committee, and ex-Directors may be admitted to residence in the Hostel. Other persons, if seriously engaged in study or research, may be admitted by the Director at his discretion. But no person shall reside in the Hostel under this rule to the exclusion of any Student desiring admission.

XL. Persons granted Student privileges under Rule XXI shall pay an admission charge at the rate of £2 for the first month, or part of a month, of residence (payable before leaving for Greece), and £1 for each succeeding month. If admitted to the Hostel they shall pay, for rooms and other charges, the same rate as students.

See also under Rules XXI, XXVI, XLIV, XLV.

RULES AND REGULATIONS

KNOSSOS.

XL I. The Archaeological Curator at Knossos shall be appointed ¹ by the Managing Committee for a period of not more than three years. He shall be eligible for re-election.

XL II. It shall be his duty

- (1) to reside generally at Knossos in quarters assigned to him by the Managing Committee, for eight months in each year, normally from November 1st to June 30th. Residence is deemed to include periods of travel in Crete, and occasional visits to other parts of Greece. The upper rooms and the kitchen of the Taverna are assigned to the Curator for his personal use.
- (2) to undertake the care and management of the School's estate and archaeological area and be responsible for their maintenance in good repair.

XL III. He shall hold, with regard to the Director of the School, the same position as the Assistant Director.

The Director of the School has general authority in questions of policy, but the Curator is at all times responsible for administration.

XL IV. Students residing at the Villa Ariadne or Taverna, shall pay to the Villa Account the same charges as in the Hostel at Athens. Special arrangements may be made with regard to Students and others engaged in an excavation of the School.

The total number of Students, persons with Students' privileges and other persons admitted on recommendation of the Director, residing at the same time at Knossos, shall not exceed seven, of whom not more than five shall be admitted at the same time to residence in the Villa.

See also under Rule XLIX, LII.

RULES FOR THE LIBRARY.

XL V. The Director shall have power to make regulations for the management of the Library, its use by Students, and the like, subject to the approval of the Managing Committee.

PUBLICATION AND ARCHAEOLOGICAL WORK.

XL VI. No publication whatever, respecting the work of the School, shall be made without the previous approval of the Committee. The Committee of the School shall have the first claim upon any written work done by a Student from material collected during the tenure of a Studentship at the School or with the aid of a grant from the School, and also upon the reports of excavations conducted under an official permit obtained through the School. No such work may be published elsewhere than in the *Annual* of the School without the previous consent of the Committee; always provided that such consent shall not be unreasonably withheld.

XL VII. The Managing Committee incurs no financial liability of any kind, except by specific resolution, in regard to archaeological work under the auspices of the School (excavation and work resulting therefrom, publication, etc.) undertaken by an Officer or Student of the School or any other person.

THE FINANCES.

XL VIII. All money received on behalf of the School beyond what is required for current expenses shall be invested in the names and at the discretion of the Trustees.

XL IX. The banking account of the School shall be placed in the names of the Treasurer and Secretary, who shall sign cheques jointly.

L. The first claim on the revenue of the School shall be the maintenance and repair of the School premises in Athens and Knossos (Villa Ariadne and Taverna), and the payment of rates, taxes, and insurance.

LI. The second claim shall be the salaries of the Director and other officials of the School, as arranged between them and the Managing Committee.

LII. The Director shall submit annually, together with his report to the Managing Committee, estimates of expenditure for the following Session showing under the appropriate heads the amounts needed for the maintenance and repair of the School premises at Athens and Knossos, for the Library, and for excavations. These estimates shall be examined and approved by the Committee, and the Director shall report on any excess of expenditure over these. No extraordinary expenditure shall be incurred without a special resolution of the Managing Committee.

Revised October 1938.

¹ Subject to the approval of Sir Arthur Evans.

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1. THE CAVE OF SKAPHIDHIA.



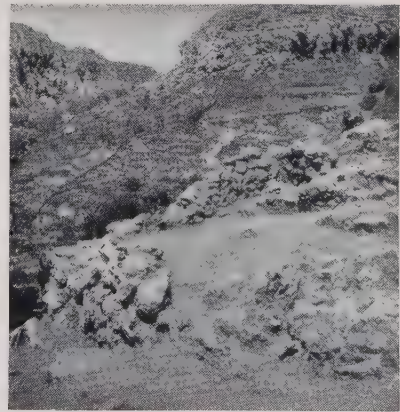
2. NEOLITHIC BURIAL ON THE
KASTELLOS.



3. VIEW OF THE KASTELLOS FROM THE EAST.

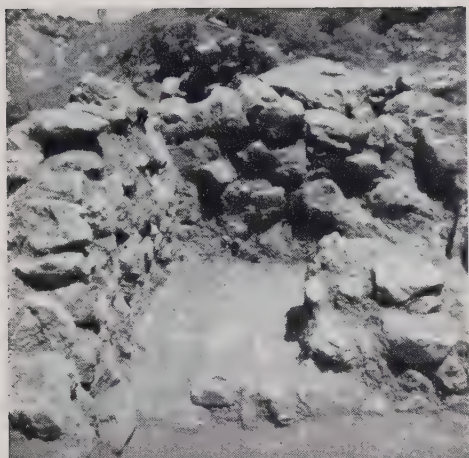


4. VIEW OF THE KASTELLOS FROM
THE SOUTH-WEST.



5. THE HOUSE, TEST 9, FROM THE
SOUTH.

PLATE II.



1. THE HOUSE, TEST 9, THE FOOT OF THE STAIRS.



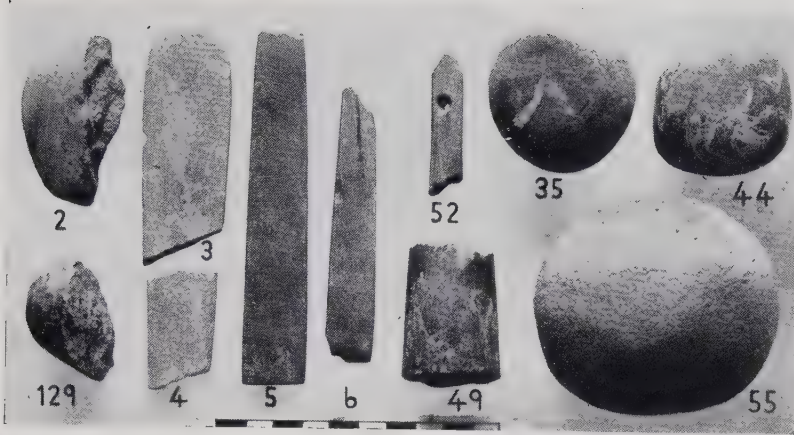
2. THE HOUSE, TEST 9, THE UPPER PART OF THE STAIRS.



3. THE HOUSE, TEST 9, UPPER ROOM AND EXTERIOR STORE CHAMBER.



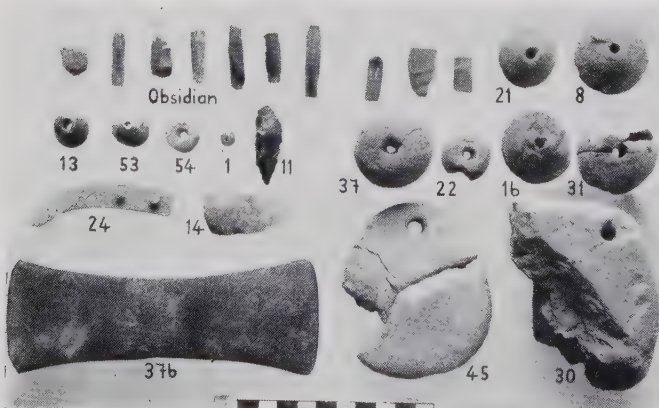
4. THE HOUSE, TEST 7, FROM THE EAST.



I. OBJECTS OF STONE FROM THE KASTELLOS.

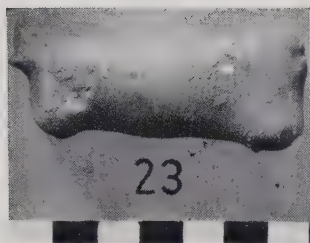


2. STONE VASES FROM THE KASTELLOS.



3. MISCELLANEOUS OBJECTS FROM THE KASTELLOS.

PLATE IV.



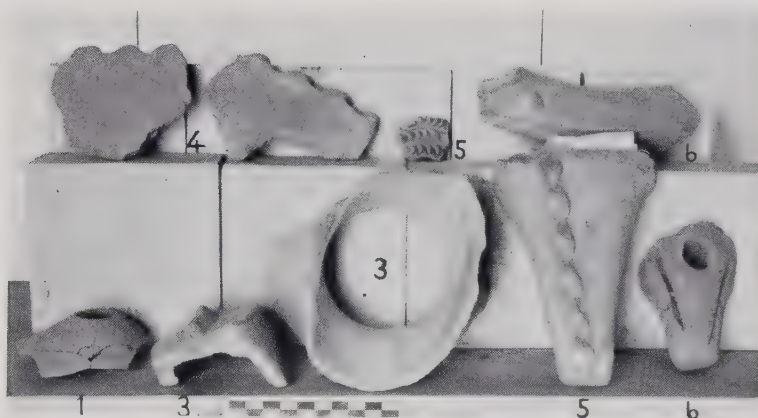
1. CLAY ANIMAL FROM THE KASTELLOS.



2. VASE FROM THE CAVE OF SKAPHIDHIA.



3. VASE FROM DEPOSIT NEAR TRAPEZA.



4. MISCELLANEOUS POTTERY FROM THE KASTELLOS.



5. INSCRIBED SHERDS FROM THE KASTELLOS.



1. NEOLITHIC POTTERY.



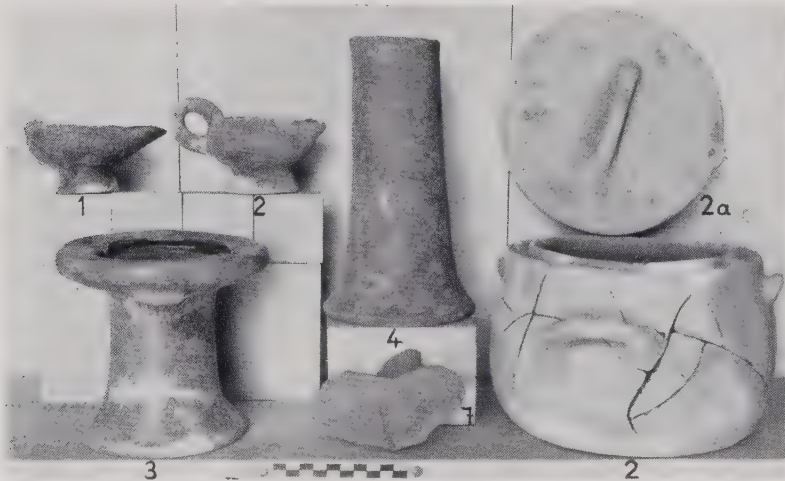
2. SHERDS OF TRAPEZA WARE.



3. CUPS AND JUGS FROM THE KASTELLOS.



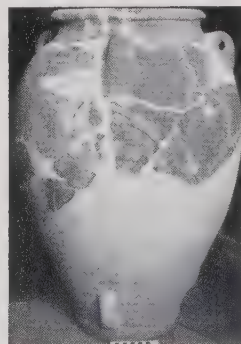
1. DISHES AND TRIPODS FROM THE KASTELLOS.



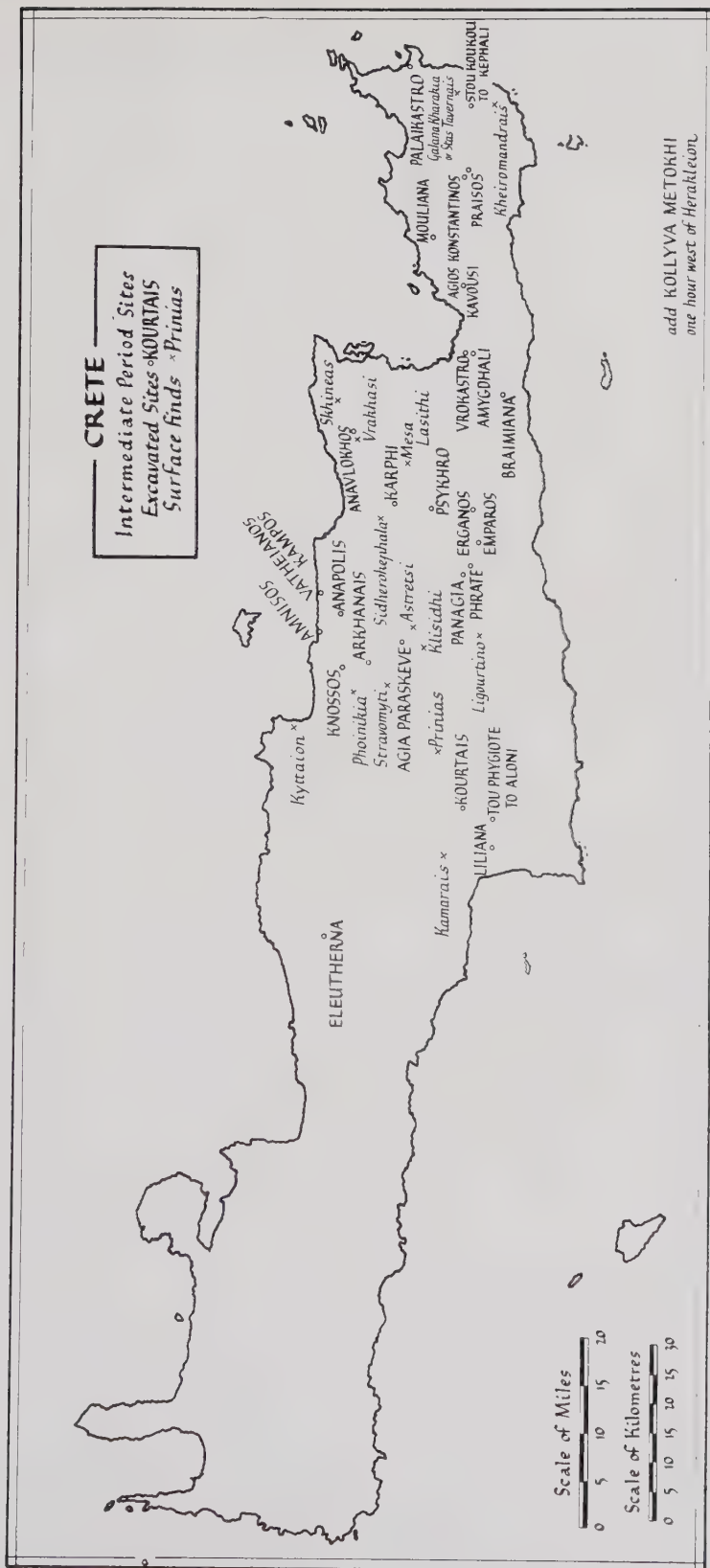
2. LAMPS AND BOWLS FROM THE KASTELLOS.



3. BOWLS AND JARS FROM THE KASTELLOS.



4. PITHOS FROM THE KASTELLOS.

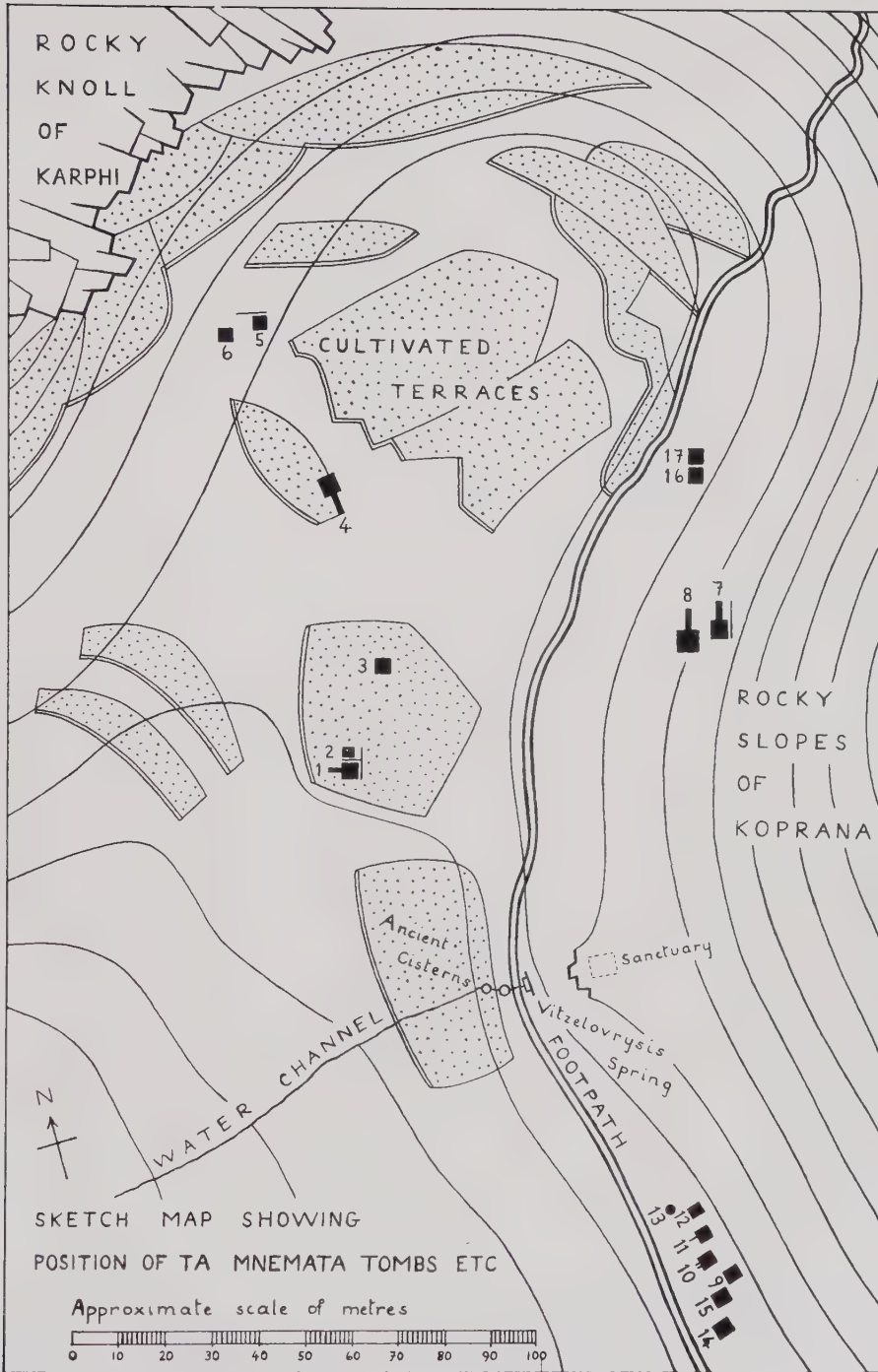


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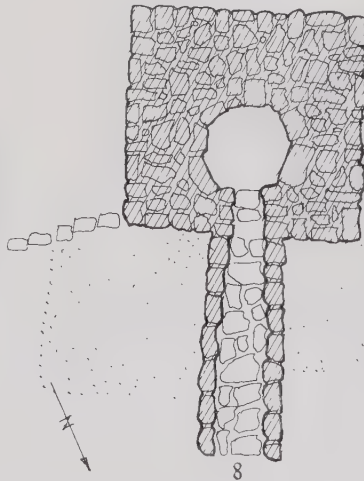
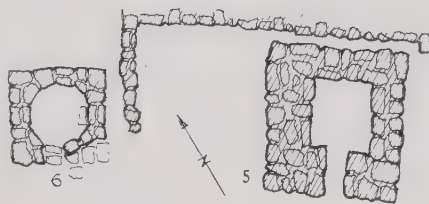
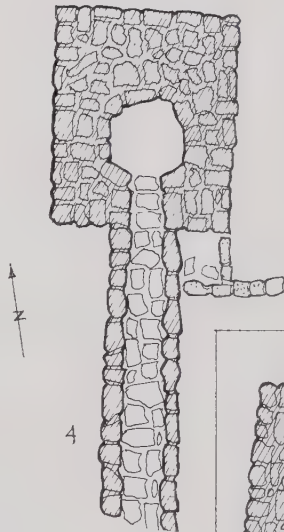
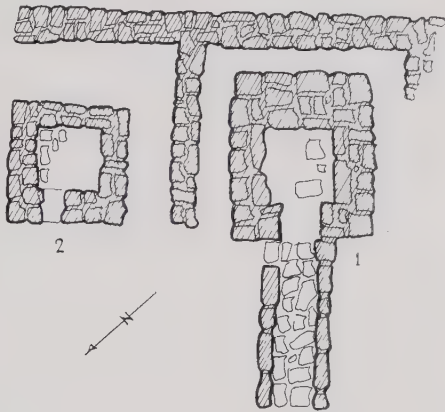
KARPHI BLOCK PLAN OF EXCAVATED AREA



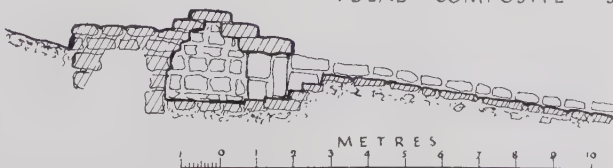




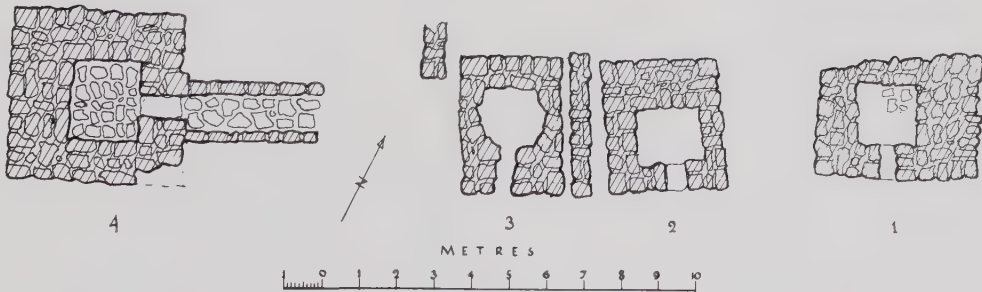
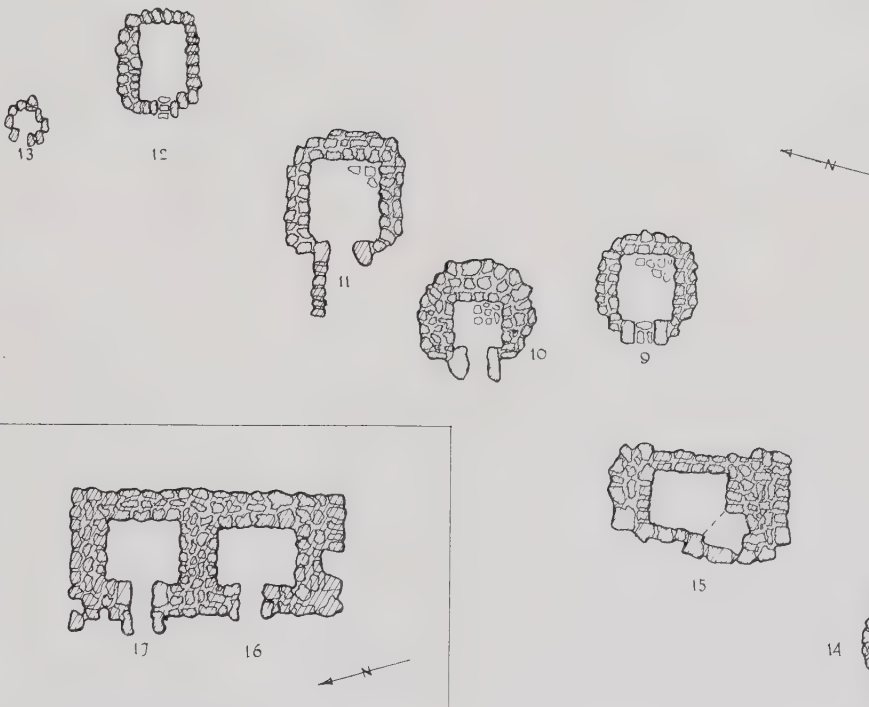
TOMBS AT TA MNEMATA



IDEAL COMPOSITE SECTION



TOMBS AT TA MINEMATA



TOMBS AT ASTIVIDHERO



1. KARPFI FROM THE PAPOURA.
VIEW NORTH-EAST.



2. KARPFI FROM TA MNEMATA.
VIEW NORTH.



3. KARPFI FROM THE NORTH.



4. KARPFI FROM MIKRE KOPRANA BEFORE EXCAVATION. VIEW WEST.



1. KARCHI FROM MIKRE KOPRANA AFTER EXCAVATION. VIEW WEST.



2. MIKRE KOPRANA FROM KARCHI AFTER EXCAVATION. VIEW EAST.



3. KARCHI FROM THE RIDGE BETWEEN MIKRE AND MEGALE KOPRANA.
VIEW NORTH-WEST.



1. K. 147. COMPARTMENT OUTSIDE
DOOR.



2. K. 140, 139, 138. HOUSE FROM
THE SOUTH.



3. K. 139. CUPBOARD AND JAR-STAND.



4. PRECIPITOUS PATHWAY.



5. K. 2. VIEW FROM THE WEST.



6. K. 6. VIEW FROM THE WEST.



1. K. 1. LEDGE ON WHICH CULT STATUES STOOD.



2. K. 1. STEPS LEADING UP FROM THE COURT.



3. K. 1. ALTAR AT THE NORTH END OF THE COURT.



4. K. 1. ROOM OF THE BLUE VASES.



5. K. 8, 9, 11-18. GENERAL VIEW FROM THE EAST.



6. K. 8, 9, 11-18. GENERAL VIEW FROM THE WEST.



1. K. 8 AND 9. VIEW FROM THE EAST.



2. K. 9. JAR-STAND AND HATCH.



3. K. 11. DETAILS OF ADDITIONS.



4. K. 12 AND 13. CELLARS FROM THE SOUTH.



5. K. 32. EAST END.



6. K. 34, 33, 31, 23. GENERAL VIEW FROM THE NORTH.



1. K. 23. STEPS OUTSIDE.



2. K. 23 AND 22. GENERAL VIEW FROM THE EAST.



3. K. 24-28. AREA OF THE CULT OBJECTS.



4. K. 44 AND 47. DOUBLE WALL BETWEEN THE ROOMS.



5. K. 52 AND 53. WATER BREAK AT THE CORNER.



6. K. 57. ROOM OF THE ALTAR.



1. K. 71. BANKING OF EARLIER ROAD.



2. K. 73. BREAD OVEN.



3. K. 76. ORTHOSTATS.



4. K. 76. MANURE TIP AND ORTHOSTATS.



5. K. 79. OVEN.



6. K. 85. LEDGE.

PLATE XXI.



1. K. 69. DOOR TO ROOF OF LOWER HOUSE.



2. K. 69. CORNER OF STONE BENCH AND ROCK WALL.



3. K. 96. FALLEN JAR.



4. K. 80. REMAINS OF PITHOS.



5. K. 113. COLUMN BASE.



6. K. 114. JAR-STAND.



1. K. 101, 103, 105, 111. STEPPED ASCENT.



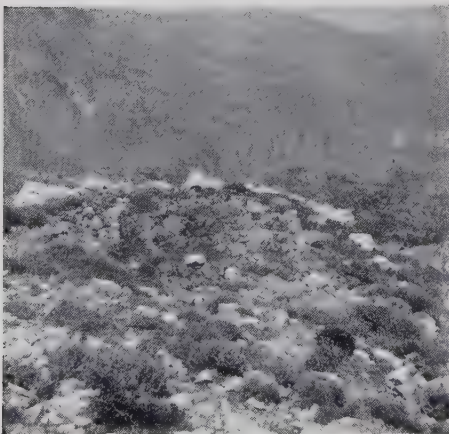
2. K. 90-95, 98 and 99. GENERAL VIEW OF THE 'NAUGHTY NINETIES' FROM THE SOUTH.



3. K. 128. EAST WALL.



4. 'PEAK SANCTUARY.' CRAGS BELOW THE SUMMIT WHERE THE STATUETTES WERE FOUND.



5. VITZELOVRY SIS SANCTUARY. AREA OF THE FIGURINES.



6. VITZELOVRY SIS SPRING. BUILT WATER CHANNEL IN THE HILLSIDE.



1



2



3



4

VIEWS OF THE PRESENT TOWN OF TZERMIADHO.



5. FLATTENING THE ROOF OF A HOUSE BY DANCING.



6. A DANCE IN THE "BARRACKS."



1. PLAIN OF LASITHI FROM MEGALE KOPRANA.



2. KARPFI FROM THE SADDLE BETWEEN MIKRE AND MEGALE KOPRANA.



3. TA MNEMATA FROM THE TOP OF KARPFI.



4. VITZELOVRYSSIS. THE SPRING AFTER RECONSTRUCTION.



5. VASES OF BLUE WARE FROM THE TEMPLE.



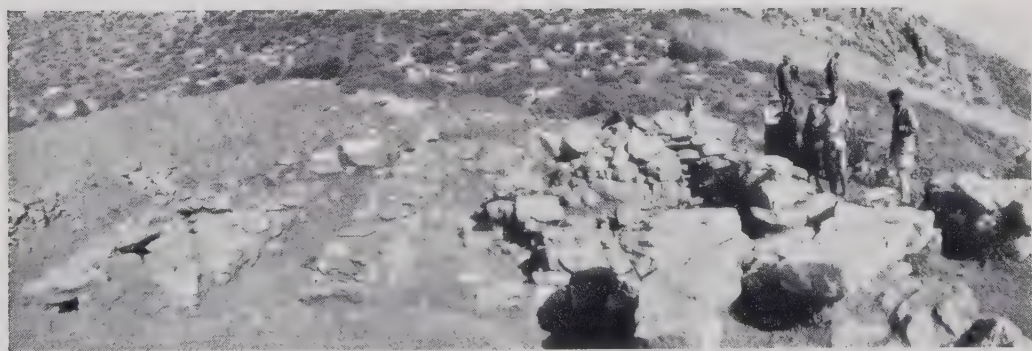
6. TANKARD FROM M. 4. AND PYXIS FROM K. 14.



1. GENERAL VIEW OF TA MNEMATA
FROM THE TOP OF KARPHI.



2. M. 1. DETAIL.



3. M. 1 AND 2. GENERAL VIEW FROM THE WEST.



4. M. 3. FROM THE BACK.



5. M. 5. FROM THE SOUTH.



1. M. 4. DROMOS FROM THE SOUTH.



2. M. 4. ENTRANCE FROM THE SOUTH.



3. M. 7. GENERAL VIEW FROM THE NORTH.



4. M. 8. GENERAL VIEW FROM THE NORTH.



5. M. 10. FROM THE BACK.



6. M. 11. ENTRANCE.



1. M. 16 AND 17. GENERAL VIEW FROM THE WEST.



2. A. 1. FROM THE NORTH.



3. A. 4. GENERAL VIEW FROM THE EAST.

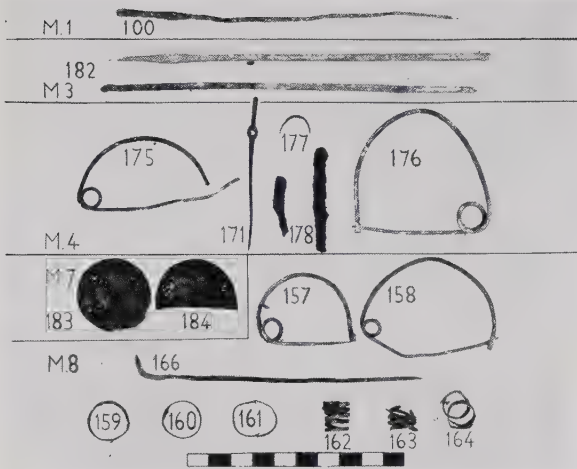


4. A. 4. ENTRANCE.



5. A. 4. ENTRANCE FURTHER CLEARED.

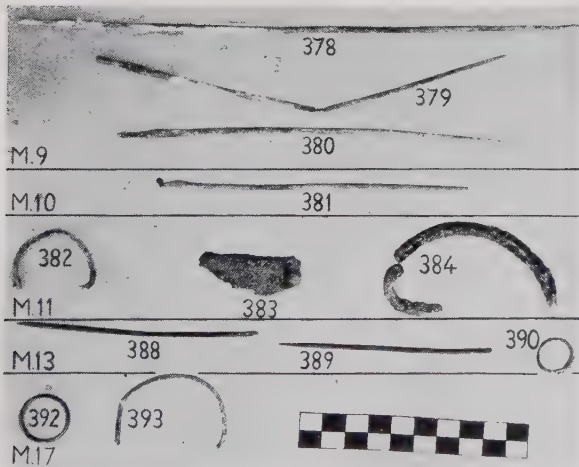
PLATE XXVIII.



1.



2.



3.

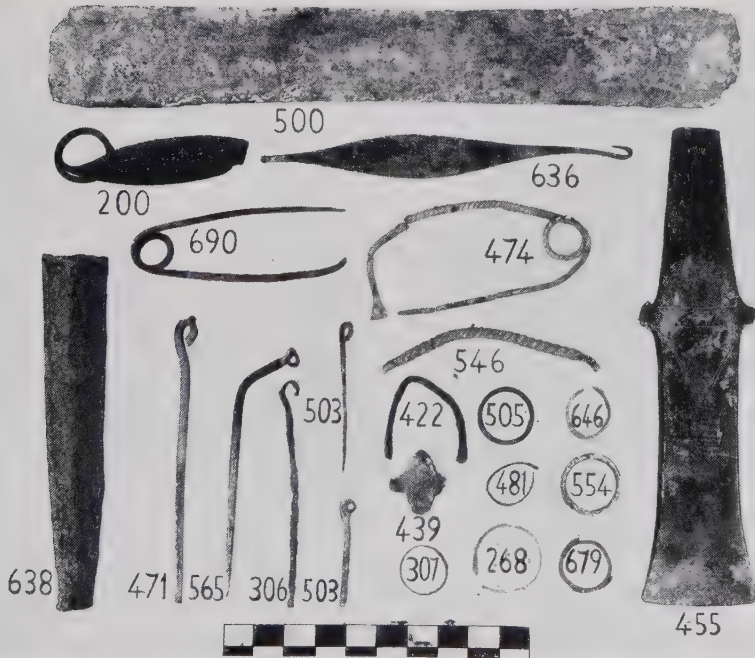


4.

BRONZES AND BONE.



I.



2.

BRONZE OBJECTS.

PLATE XXX.



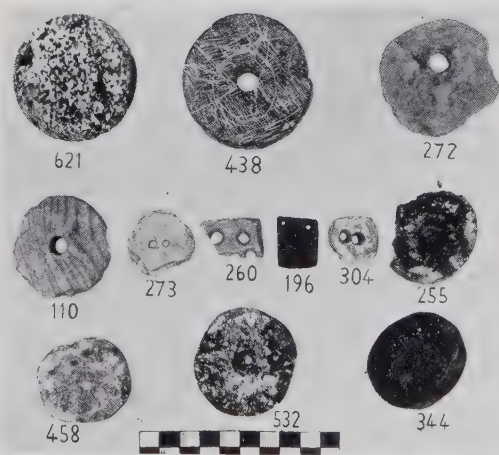
1.



2.



3.



4.

STONE AND CLAY OBJECTS.



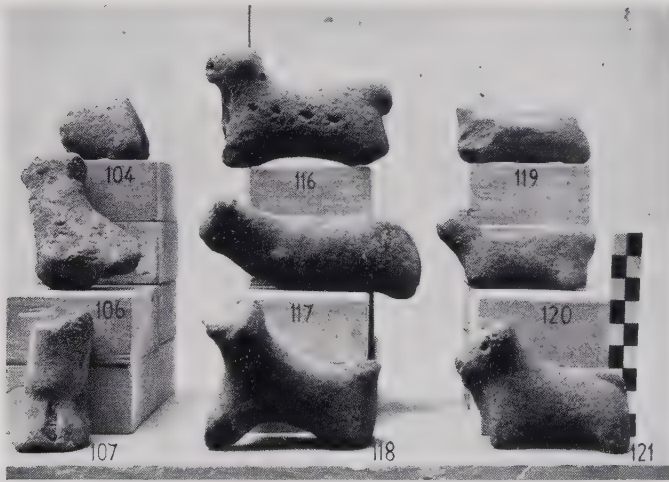
CLAY STATUES OF GODDESSES 1 AND 2 FROM THE TEMPLE.



I.



2.

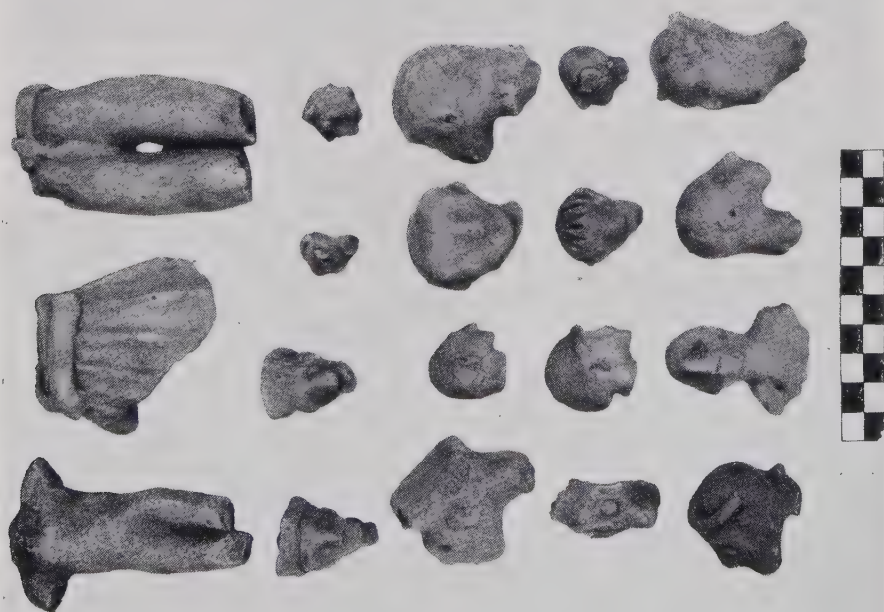


3.

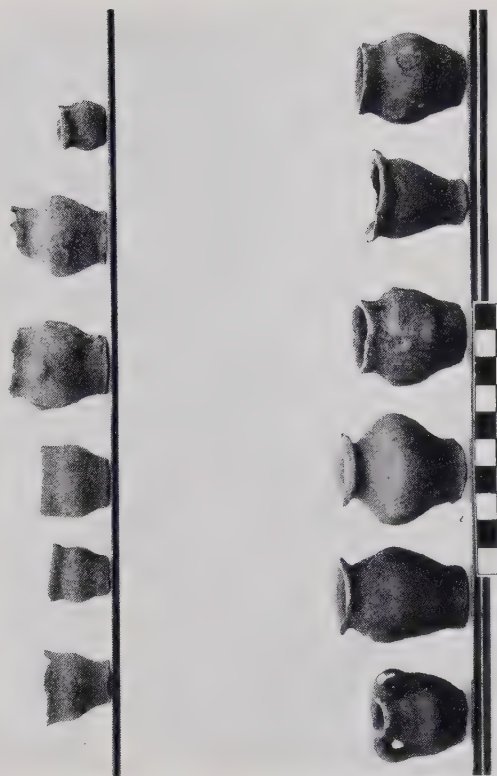


4.

CLAY FIGURINES.



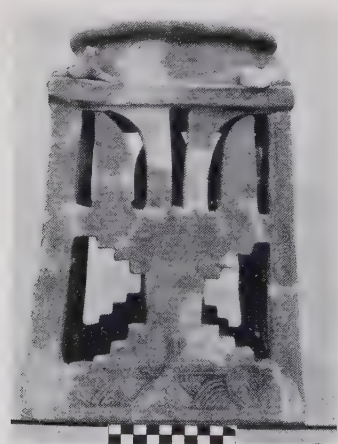
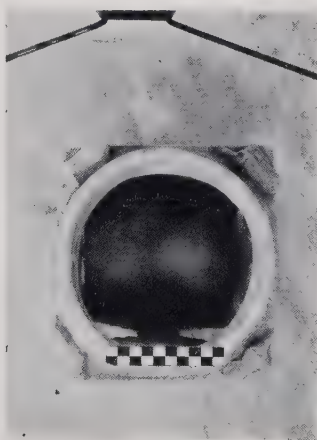
1.
CLAY FIGURINES AND MINIATURE VASES FROM THE 'PEAK SANCTUARY.'



2.



3.



CLAY ALTAR.



1.



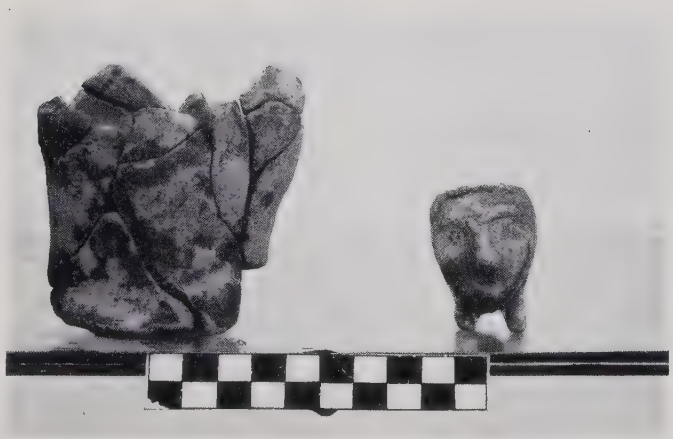
2.



3.



4.



5.



6.



7.

CULT OBJECTS, ETC.

